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AND THE EARLIER PERIPATETICS

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ARISTOTLE

AND

THE EARLIER PERIPATETICS

BEING A TRANSLATION FROM

ZELLER'S 'PHILOSOPHY OF THE GREEKS'

BY

B. F. C. COSTELLOE, M.A.

AND

J. H. MUIRHEAD, M.A.

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„ 6, l. 8, *for* alien *read* allied
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„ 147, n. col. 1, l. 16, *for* these last, however, are merely causes *read* the satisfaction of a want, moreover, is merely the cause
„ 152, n. 1, col. 1, l. 3, *omit* wrong
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„ 172, n. 2, col. 2, l. 3 from bottom, *after* things *read* that
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„ 245, l. 1, *for* But even any one of such advantages as these confers *read* But even such advantages as these confer of themselves no title to rule in the State.
„ 259, n. 1, col. 1, l. 8, *for* size *read* greatness
„ 267, n. col. 1, l. 9, *omit* or
„ 274, l. 8, *for* or form, differing *read* or from differing
„ 292, l. 9, *for* But as he regards . . . sense *read* Since, however, proof is the chief end in view
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ARISTOTLE

AND THE

EARLIER PERIPATETICS

CHAPTER X

[CHAP. IX. C. OF GERMAN TEXT]

Living Creatures

1. *The Soul and Life*

WHAT distinguishes living creatures from all others is the Soul.[1] All life, in fact, consists in the power of self-movement,[2] that is, in a capacity inherent in a being of effecting changes in itself: the simplest form of which is confined, as in the case of plants, to nutrition, growth, and decay.[3] But every movement implies two elements

---

[1] *De An.* i. 1, 407, a, 4: the investigation into the nature of the soul is of the highest value for science, *μάλιστα δὲ πρὸς τὴν φύσιν· ἔστι γὰρ οἷον ἀρχὴ τῶν ζῴων* [*ἡ ψυχή*].

[2] *Ibid.* ii. 1, 412, b, 16, cf. a, 27, and see *infra*.

[3] *Ibid.* ii. 2, 413, a, 20: *λέγομεν οὖν . . . διωρίσθαι τὸ ἔμψυχον τοῦ ἀψύχου τῷ ζῆν. πλεοναχῶς δὲ τοῦ ζῆν λεγομένου, κἂν ἕν τι τούτων ἐνυπάρχῃ μόνον, ζῆν αὐτό φαμεν, οἷον νοῦς, αἴσθησις, κίνησις καὶ στάσις ἡ κατὰ τόπον, ἔτι κίνησις ἡ κατὰ τροφὴν καὶ φθίσις τε καὶ αὔξησις. διὸ καὶ τὰ φυόμενα πάντα δοκεῖ ζῆν· φαίνεται γὰρ ἐν αὐτοῖς ἔχοντα δύναμιν καὶ ἀρχὴν τοιαύτην, δι᾽ ἧς αὔξησίν τε καὶ φθίσιν λαμβάνουσι . . . οὐδεμία γὰρ αὐτοῖς ὑπάρχει δύναμις ἄλλη ψυχῆς.* As this lowest form of life presents itself wherever the higher is (see

—something that moves, and something that is moved: form and matter; and if a thing moves itself, it must contain this duality within itself.[1] Hence every being that has life must be a compound being; and if we call the material part, which is subject to motion, the body, it will follow that the form, which is the cause of motion, has a being separate from and independent of the body.[2] And as the form in general is identified with the efficient and the final cause, this being may also be said to be the final aim or end of the body.[3] The form thus considered as motive or efficient force is called by Aristotle 'Entelechy'; [4] and hence he defines the Soul as

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infra) it may be treated as the universal mark of a living thing; *ibid.* c. 1, 412, a, 13: *τῶν δὲ φυσικῶν* [sc. *σωμάτων*] *τὰ μὲν ἔχει ζωὴν τὰ δ' οὐκ ἔχει· ζωὴν δὲ λέγομεν τὴν δι' αὐτοῦ* [*αὑτοῦ*] *τροφήν τε καὶ αὔξησιν καὶ φθίσιν.* On the other hand, *De An.* i. 2, 403, b, 25 (*τὸ ἔμψυχον δὴ τοῦ ἀψύχου δυοῖν μάλιστα διαφέρειν δοκεῖ, κινήσει τε καὶ τῷ αἰσθάνεσθαι*), expresses merely the popular view, not the technical definition, of life.

[1] See p. 4, n. 1, *infra.*

[2] *De An.* ii. 1, 412, a, 15: *ὥστε πᾶν σῶμα φυσικὸν μετέχον ζωῆς οὐσία ἂν εἴη, οὐσία δ' οὕτως ὡς συνθέτῃ· ἐπεὶ δ' ἐστί σῶμα τοιόνδε·* [TRENDELENBURG: *σῶμα καὶ τοιονδί;* TORSTRIK: *καί σ. τοιόνδε*], *ζωὴν γὰρ ἔχον, οὐκ ἂν εἴη τὸ σῶμα ψυχή. οὐ γάρ ἐστι τῶν καθ' ὑποκειμένου τὸ σῶμα, μᾶλλον δ' ὡς ὑποκείμενον καὶ ὕλη. ἀναγκαῖον ἄρα τὴν ψυχὴν οὐσίαν εἶναι ὡς εἶδος σώματος φυσικοῦ δυνάμει ζωὴν ἔχοντος.* *Part. An.* i. 1, 641, a, 14–32; *Gen. An.* ii. 4, 738, b, 26; *Metaph.* viii. 3, 1043, a, 35. Aristotle had already described the soul in the *Eudemus* as *εἶδός τι*; see i. 383 sq., *supra.*

[3] *De An.* ii. 4, 415, b, 7, where after the passage quoted, i. 356, n. 1, *sup.*, he goes on, l. 12: *ὅτι μὲν οὖν ὡς οὐσία* [sc. *αἰτία ἐστὶν ἡ ψυχὴ*] *δῆλον· τὸ γὰρ αἴτιον τοῦ εἶναι πᾶσιν ἡ οὐσία, τὸ δὲ ζῆν τοῖς ζῶσι τὸ εἶναί ἐστιν, αἰτία δὲ καὶ ἀρχὴ τούτων ἡ ψυχή. ἔτι τοῦ δυνάμει ὄντος λόγος ἡ ἐντελέχεια. φανερὸν δ' ὡς καὶ οὗ ἕνεκεν ἡ ψυχὴ αἰτία· ὥσπερ γὰρ ὁ νοῦς ἕνεκά του ποιεῖ, τὸν αὐτὸν τρόπον ἡ φύσις, καὶ τοῦτ' ἔστιν αὐτῇ τέλος. τοιοῦτον δ' ἐν τοῖς ζῴοις ἡ ψυχὴ καὶ* [?] *κατὰ φύσιν· πάντα γὰρ τὰ φυσικὰ σώματα τῆς ψυχῆς ὄργανα . . . ὡς ἕνεκα τῆς ψυχῆς ὄντα.* He then goes on to show, what is a matter of course, that the soul is an efficient cause. *Part. An.* i. 1, 641, a, 25: the *οὐσία* is both efficient and final cause; *τοιοῦτον δὲ τοῦ ζῴου ἤτοι πᾶσα ἡ ψυχὴ ἢ μέρος τι αὐτῆς.*

[4] Cf. i. 379, *supra.*

the Entelechy, or more accurately as the First Entelechy, of a natural body endowed with the capacity of life.[1] This again applies to none but organic bodies, the members of which are designed for some definite purpose and serve as instruments for the fulfilment of special functions.[2] The Soul accordingly is the First

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[1] *De An.* ii. 1, Aristotle proceeds: *ἡ δ' οὐσία ἐντελέχεια* [the form is the efficient force]. *τοιούτου ἄρα σώματος ἐντελέχεια.* The expression 'entelecheia' has, however, a double sense: at one time it is the power of action that is understood by it; at another, the activity itself (the standing example of the former meaning is *ἐπιστήμη*, of the latter, *θεωρεῖν*; see *ibid.*, and cf. *Metaph.* ix. 6, 1048, a, 34; *Phys.* viii. 4, 255, a, 33; *De Sensu*, 4, 441, b, 22; *Gen. An.* ii. 1, 735, a, 9; TRENDELENBURG, *De An.* 314 sq.; BONITZ, *Arist. Metaph.* ii. 394). The soul can be called entelecheia only in the former sense (that of the power), seeing that it is present even in sleep; this is what is meant by the addition *πρώτη*, when in l. 27 it is said: *ψυχή ἐστιν ἐντελέχεια ἡ πρώτη σώματος φυσικοῦ δυνάμει ζωὴν ἔχοντος*, for the power always precedes the activity.

[2] Aristotle proceeds, l. 28: *τοιοῦτο δὲ* [sc. *δυνάμει ζωὴν ἔχον*], *ὃ ἂν ᾖ ὀργανικὸν*, adding that the parts of plants also are organs, though very simple ones (cf. *Part. An.* ii. 10, 655, b, 37). On the definition of organic life cf. the passage quoted by TRENDELENBURG *in loco*; *Part. An.* i. 1, 642, a, 9: as the axe to fulfil its purpose must be hard, *οὕτως καὶ ἐπεὶ τὸ σῶμα ὄργανον (ἕνεκά τινος γὰρ ἕκαστον τῶν μορίων, ὁμοίως δὲ καὶ τὸ ὅλον) ἀνάγκη ἄρα τοιονδὶ εἶναι καὶ ἐκ τοιωνδί, εἰ ἐκεῖνο ἔσται.* *Ibid.* i. 5, 645, b, 14: *ἐπεὶ δὲ τὸ μὲν ὄργανον πᾶν ἕνεκά του, τὸ δ' οὗ ἕνεκα πρᾶξίς τις, φανερὸν ὅτι καὶ τὸ σύνολον σῶμα συνέστηκε πράξεώς τινος ἕνεκα πλήρους.* As the saw exists for the sake of sawing, so *τὸ σῶμά πως τῆς ψυχῆς ἕνεκεν, καὶ τὰ μόρια τῶν ἔργων πρὸς ἃ πέφυκεν ἕκαστον.* *Ibid.* ii. 1, 646, b, 10 sqq.: of the constituent parts of living things some are homogeneous, others heterogeneous (see i. 517, n. 6, *supra*); the former, however, exist for the sake of the latter; *ἐκείνων* [sc. *τῶν ἀνομοιομερῶν*] *γὰρ ἔργα καὶ πράξεις εἰσίν . . . διόπερ ἐξ ὀστῶν καὶ νεύρων* &c. *συνεστήκασι τὰ ὀργανικὰ τῶν μορίων.* *Ibid.* ii. 10, 655, b, 37: plants have only a few heterogeneous parts; *πρὸς γὰρ ὀλίγας πράξεις ὀλίγων ὀργάνων ἡ χρῆσις.* The 'organic' parts of the body, therefore, are those which serve a definite purpose; for this use of the word see, e.g. *Gen. An.* ii. 4, 739, b, 14: *τοῖς ὀργανικοῖς πρὸς τὴν συνουσίαν μορίοις.* *Ingr. An.* 4, 705, b, 22: *ὅσα μὲν γὰρ ὀργανικοῖς μέρεσι χρώμενα (λέγω δ' οἷον ποσὶν ἢ πτέρυξιν ἤ τινι ἄλλῳ τοιούτῳ) τὴν εἰρημένην μεταβολὴν* [locomotion] *ποιεῖται . . . ὅσα δὲ μὴ τοιούτοις μορίοις, αὐτῷ δὲ τῷ σώματι διαλήψεις ποιούμενα προέρχεται.* All the

Entelechy of a Natural Organic Body.[1] This definition does not, indeed, apply to the higher portion of the Soul, which in the human spirit is added to its other parts. With this, however, Natural Philosophy has nothing to do: it is rather the subject-matter of the 'First Philosophy.'[2]

The soul, considered as the form and moving principle of the body, must itself be incorporeal;[3] and here Aristotle contradicts the interpreters of his theory who represent it as being material in nature. It does not move itself, as Plato thought, for then it would be a *motum* as well as a *movens*, and every *motum* exists in space.[4] Nor is it a harmony of its own body;[5] for such a harmony would be either a union or a proportionate mixture of different materials, and the soul is neither one nor the other: the notion of harmony is better suited to physical conditions, such as health, than to the soul.[6] Again, it is not a number that moves itself,

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parts of a living body, however, serve some active purpose.

[1] *De An.* ii. 1, 412, b, 4: *εἰ δή τι κοινὸν ἐπὶ πάσης ψυχῆς δεῖ λέγειν, εἴη ἂν ἐντελέχεια ἡ πρώτη σώματος φυσικοῦ ὀργανικοῦ*, and a similar definition is given, l. 9 sqq.: it is the *λόγος* [or the *οὐσία κατὰ τὸν λόγον*] *σώματος φυσικοῦ τοιουδὶ ἔχοντος ἀρχὴν κινήσεως καὶ στάσεως ἐν ἑαυτῷ.*

[2] See on this subject *Part. An.* ii. 1, 641, a, 17–b, 10: cf. *De An.* i. 1, 403, a, 27, b, 9 sqq., ii. 2, 413, b, 24.

[3] See p. 2, n. 2, *supra. De Juvent.* 1, 467, b, 14: *δῆλον ὅτι οὐχ οἷόν τ' εἶναι σῶμα τὴν οὐσίαν αὐτῆς* [*τῆς ψυχῆς*], *ἀλλ' ὅμως ὅτι γ' ἔν τινι τοῦ σώματος ὑπάρχει μορίῳ, φανερόν.*

[4] *De An.* i. 3, 404, a, 21, c. 4, 408, a, 30 sqq. The further reasons that are urged against this view we must here pass over. On the Platonic conception of a world-soul see i. 459, n. 5, *supra.*

[5] On this assumption, cf. ZELLER, *Ph. d. Gr.* i. 413.

[6] *De An.* i. 4 *init.* 408, a, 30, where this conclusion is supported with further arguments, cf. PHILOP. *De An.* E, 2, m, (*Ar. Fr.* 41): *κέχρηται δὲ καὶ αὐτὸς ὁ Ἀριστοτέλης . . . ἐν τῷ Εὐδήμῳ τῷ διαλόγῳ δύο ἐπιχειρήσεσι ταύταις. μιᾷ μὲν οὕτως· τῇ ἁρμονίᾳ, φησὶν, ἐστί τι ἐναντίον, ἡ ἀναρμοστία· τῇ δὲ ψυχῇ οὐδὲν ἐναντίον· οὐκ ἄρα ἡ ψυχὴ ἁρμονία ἐστὶν· . . .*

for it does not move itself, and if it were a number it certainly could not do so.[1] It is not some one sort of material, as Democritus thought, nor a mixture of all materials, as Empedocles held:[2] for if it were a material it could not spread through all parts of the body,[3] since two bodies cannot coexist in the same space; and if the soul must contain all materials, in order that it may be able to perceive them all, the same argument would oblige us to ascribe to it all combinations of materials in order that it may know all. We cannot identify it with the air we breathe, since all living creatures do not breathe.[4] Nor is it diffused through all sorts of matter,[5] since simple bodies are not living creatures.

The soul, then, is not in any sense corporeal,

δευτέρᾳ δέ· τῇ ἁρμονίᾳ, φησὶ, τοῦ σώματος ἐναντίον ἐστὶν ἡ ἀναρμοστία τοῦ σώματος· ἀναρμοστία δὲ τοῦ ἐμψύχου σώματος νόσος καὶ ἀσθένεια καὶ αἶσχος. ὧν τὸ μὲν ἀσυμμετρία ἐστὶ τῶν στοιχείων ἡ νόσος, τὸ δὲ τῶν ὁμοιομερῶν ἡ ἀσθένεια, τὸ δὲ τῶν ὀργανικῶν τὸ αἶσχος. [On this, however, see i. 517, n. 6, *supra*.] *εἰ τοίνυν ἡ ἀναρμοστία νόσος καὶ ἀσθένεια καὶ αἶσχος, ἡ ἁρμονία ἄρα ὑγεία καὶ ἰσχὺς καὶ κάλλος. ψυχὴ δὲ οὐδέν ἐστι τούτων, οὔτε ὑγεία φημὶ οὔτε ἰσχὺς οὔτε κάλλος· ψυχὴν γὰρ εἶχεν καὶ ὁ Θερσίτης αἴσχιστος ὤν. οὐκ ἄρα ἐστὶν ἡ ψυχὴ ἁρμονία. καὶ ταῦτα μὲν ἐν ἐκείνοις.* THEMIST. *De An.* 44 sp.; SIMPL. *De An.* 14, a, o, and OLYMPIODORUS in *Phæd.* p. 142, also mention this argument from the *Eudemus*.

[1] *Ibid.* 408, b, 32 sqq.; cf. ZELL. *Ph. d. Gr.* i. 871, 2.

[2] On the former of these views see *De An.* i. 5 *init.* c. 3, 406, b, 15 sqq. c. 2, 403, b, 28, and *Ph. d. Gr.* i. 807 sq.; on the latter, *De An.* i. 5, 409, b, 23 sqq. c. 2, 404, b, 8, *Ph. d. Gr.* i. 725. Only one of Aristotle's many objections to the theory of Empedocles is here given.

[3] As it is obvious that the nutritive and sensitive soul at least does, from the fact that when a plant or an animal is cut, life remains in all parts alike so long as its organic conditions are present; *De An.* i. 5, 411, b. 19, ii. 2, 413, b. 13; cf. i. 4, 409, a, 9; *Longit. V.* 6, 467, a, 18; *Juv. et Sen.* 2, 468, b, 2 sqq. 483.

[4] *De An.* i. 5, 410, b, 27.

[5] Aristotle attributes this view first to Thales, but identifies it specially with Diogenes of Apollonia and Heraclitus; cf. *De An.* i. 5, 411, a, 7 sqq.; also c. 2, 405, a, 19 sqq. and ZELL. *Ph. d. Gr.* i pp. 178, 2; 238; 240; 587, 2; 642 sq.

and none of the attributes peculiar to corporeal substances can be ascribed to it. On the other hand, it cannot exist without a body.[1] Aristotle is even anxious to indicate the particular matter in which it resides, and which it carries with it as it passes from one being to another in the process of procreation. This he describes at one time as Caloric (*θερμὸν*), at another as Pneuma, regarding it as alien to the æther, and of a higher nature than the four elements; but he is wholly unable to give any clear account of its qualities, or to harmonise this conception with the general teaching of the *Physics*.[2] The only right view is that the soul is the form of its body, since the form cannot exist without the matter to which it belongs, and yet it is not

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[1] *De An.* ii. 1, 413, a, 4: *ὅτι μὲν οὖν οὐκ ἔστιν ἡ ψυχὴ χωριστὴ τοῦ σώματος, ἢ μέρη τινὰ αὐτῆς, εἰ μεριστὴ πέφυκεν, οὐκ ἄδηλον . . . οὐ μὴν ἀλλ' ἔνιά γε οὐθὲν κωλύει, διὰ τὸ μηθενὸς εἶναι σώματος ἐντελεχείας.* Cf. *Gen. An.* ii. 3, 736, b, 22 sqq. 737, a, 7 sqq. and p. 4, n. 3, *supra*, and p. 8, n. 1, *infra*.

[2] The principal passage upon the subject is *Gen. An.* ii. 3, 736, b, 29: *πάσης μὲν οὖν ψυχῆς δύναμις ἑτέρου σώματος ἔοικε κεκοινωνηκέναι καὶ θειοτέρου τῶν καλουμένων στοιχείων· ὡς δὲ διαφέρουσι τιμιότητι αἱ ψυχαὶ καὶ ἀτιμίᾳ ἀλλήλων, οὕτω καὶ ἡ τοιαύτη διαφέρει φύσις. πάντων μὲν γὰρ ἐν τῷ σπέρματι ἐνυπάρχει, ὅπερ ποιεῖ γόνιμα εἶναι τὰ σπέρματα, τὸ καλούμενον θερμόν. τοῦτο δ' οὐ πῦρ οὐδὲ τοιαύτη δύναμίς ἐστιν, ἀλλὰ τὸ ἐμπεριλαμβανόμενον ἐν τῷ σπέρματι καὶ ἐν τῷ ἀφρώδει πνεῦμα καὶ ἡ ἐν τῷ πνεύματι φύσις, ἀνάλογον οὖσα τῷ τῶν ἄστρων στοιχείῳ.* It is not fire but heat, whether of the sun or of animals, that generates life. *τὸ δὲ τῆς γονῆς σῶμα, ἐν ᾧ συναπέρχεται τὸ σπέρμα τὸ τῆς ψυχικῆς ἀρχῆς, τὸ μὲν χωριστὸν ὂν σώματος, ὅσοις ἐμπεριλαμβάνεται τὸ θεῖον (τοιοῦτος δ' ἐστὶν ὁ καλούμενος νοῦς), τὸ δ' ἀχώριστον, τοῦτο τὸ σπέρμα* [with WIMMER read *σῶμα*] *τῆς γονῆς διαλύεται καὶ πνευματοῦται φύσιν ἔχον ὑγρὰν καὶ πνευματώδη.* As the material in which the soul resides is here expressly distinguished from the elements, it is naturally thought of as æther, which elsewhere (see i. 476, n. 2, and 477, n. 1, *supra*) is described in almost identical terms. But on the other hand the æther is neither hot nor cold, nor as the element of the immutable spheres can it ever enter the region of the earthly changes of birth and death (see i. 473 sq. *supra*, and the admirable discussion in MEYER'S *Arist. Thierk.* 409 sqq.). Even if, relying upon *De Cælo*, i. 2, 269, a, 7 (on which, however, see i. 474, n. 1, *supra*), we suppose (with KAMPE, *Erkenntnissth. d. Ar.* 23) that it is forcibly injected into the organic germ, the question would still remain how we are to explain such a process

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and how the evolution which we must ascribe to the *σπέρμα τῆς ψυχικῆς ἀρχῆς*, whether we take *διαλύεσθαι* as referring to the germ itself or only to the *γονή*, is consistent with the immutability of the æther (i 476, *supra*). The material in question, moreover, is never described as æther. It is merely compared with it. Nor, indeed, does Aristotle ever speak of an æthereal matter, but only of vital heat and vital breath, as residing in the body. Similarly *De Vita*, 4, 469, b, 6: *πάντα δὲ τὰ μόρια καὶ πᾶν τὸ σῶμα τῶν ζῴων ἔχει τινὰ σύμφυτον θερμότητα φυσικήν·* whence the heat of the living, the coldness of the dead, body. *ἀναγκαῖον δὴ ταύτης τὴν ἀρχὴν τῆς θερμότητος ἐν τῇ καρδίᾳ τοῖς ἐναίμοις εἶναι, τοῖς δ' ἀναίμοις ἐν τῷ ἀνάλογον· ἐργάζεται γὰρ καὶ πέττει τῷ φυσικῷ θερμῷ τὴν τροφὴν πάντα, μάλιστα δὲ τὸ κυριώτατον.* With the heat of the heart life too becomes extinct, *διὰ τὸ τὴν ἀρχὴν ἐντεῦθεν τῆς θερμότητος ἠρτῆσθαι πᾶσι, καὶ τῆς ψυχῆς ὥσπερ ἐμπεπυρευμένης ἐν τοῖς μορίοις τούτοις* [the heart is as it were the hearth on which the soul's fire burns] . . . *ἀνάγκη τοίνυν ἅμα τό τε ζῆν ὑπάρχειν καὶ τὴν τοῦ θερμοῦ τούτου σωτηρίαν, καὶ τὸν καλούμενον θάνατον εἶναι τὴν τούτου φθοράν.* *Part. An.* ii. 3, 650, a, 2: as it is only by heat that food can be digested, all plants and animals require an *ἀρχὴ θερμοῦ φυσική*. c. 7, 652, a, 7 sqq.: the soul is not fire but resides in a fiery body, heat being its chief instrument in the performance of its functions of nourishment and motion. iii. 5, 667, b, 26: *τὴν τοῦ θερμοῦ ἀρχὴν ἀναγκαῖον ἐν τῷ αὐτῷ τόπῳ* [as the sensitive soul] *εἶναι.* *De Respir.* c. 8, 474, a, 25, b, 10: *τὸ ζῆν καὶ ἡ τῆς ψυχῆς ἕξις μετὰ θερμότητός τινός ἐστιν . . . πυρὶ γὰρ ἐργάζεται πάντα.* This heat resides in the heart. The other faculties of the soul cannot exist without the nutritive, nor the nutritive *ἄνευ τοῦ φυσικοῦ πυρός· ἐν τούτῳ γὰρ ἡ φύσις ἐμπεπύρευκεν αὐτήν.* c. 13, 477, a, 16: the higher animals have more heat; *ἅμα γὰρ ἀνάγκη καὶ ψυχῆς τετυχηκέναι τιμιωτέρας.* c. 16, 478, a, 28: all animals require cooling *διὰ τὴν ἐν τῇ καρδίᾳ τῆς ψυχῆς ἐμπύρωσιν.* c. 21 *init.*: *τοῦ θερμοῦ, ἐν ᾧ ἡ ἀρχὴ ἡ θρεπτική* (which, 480, b, 1, is also called *πῦρ*). *Ibid.* c. 17, 479, a, 7 sqq.: the *ἀρχὴ τῆς ζωῆς* gives out *ὅταν μὴ καταψύχηται τὸ θερμὸν τὸ κοινωνοῦν αὐτῆς.* When, therefore, through old age the lungs (correspondingly the gills) grow dry and stiff, the fire (*i.e.* the vital heat) gradually dies away and is easily put out altogether. *διὸ γὰρ τὸ ὀλίγον εἶναι τὸ θερμὸν, ἅτε τοῦ πλείστου διαπεπνευκότος ἐν τῷ πλήθει τῆς ζωῆς, . . . ταχέως ἀποσβέννυται.* *De An.* ii. 4 *fin.*: *ἐργάζεται δὲ τὴν πέψιν τὸ θερμόν: διὸ πᾶν ἔμψυχον ἔχει θερμότητα.* *Gen. An.* ii. 1, 732, a, 18: the higher animals are larger; *τοῦτο δ' οὐκ ἄνευ θερμότητος ψυχικῆς.* c. 6, 743, a, 26: *ἡ δὲ θερμότης ἐνυπάρχει ἐν τῷ σπερματικῷ περιττώματι.* 744, a, 29: man has the purest *θερμότης ἐν τῇ καρδίᾳ*. Cf. *Gen. An.* ii. 4, 740, b, 29: the nutritive power of the soul forms and feeds plants and aniitself material.[1] This enables us to answer the question about the unity of soul and body. Their relation to one another is just the same as that which subsists

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mals, *χρωμένη οἷον ὀργάνοις θερμότητι καὶ ψυχρότητι.* According to *Gen. An.* iii. 11 (see i. 460, n. 3, *supra*) the vital heat resides in the **πνεῦμα**, the *ἀρχὴ τοῦ πνεύματος* (*De Somno*, 2, 456, a, 7) in the heart, from which all animal heat proceeds; in those animals which have no heart, *ἐν τῷ ἀνάλογον τὸ σύμφυτον πνεῦμα ἀναφυσώμενον καὶ συνιζάνον φαίνεται* (*ibid.* l. 11). This **πνεῦμα σύμφυτον**, which is a natural and inherent property, not an external adjunct, of animals, is frequently mentioned, as in *Gen. An.* ii. 6, 744, a, 3, v. 2, 781, a, 23 (ZELLER, *Ph. d. Gr.* i. 16, 659, b, 17), where we are told that it pervades the channels of hearing and smell, and is the medium by which sounds and smells are conveyed to their respective senses; *Part. An.* iii. 6, 669, a, 1, where it is said that in the case of bloodless animals, which have less internal heat and do not require to breathe, the *πνεῦμα σύμφυτον* is sufficient for purposes of cooling. As, however, according to the above, it is also the seat of animal heat, the phrase must be understood in the sense explained in *Respir.* 9, 474, b, 31 sqq., to mean that cooling, in the case of such non-respirating animals as require more than that caused by the air or water that surrounds them, is produced by the expansion and contraction of the *πνεῦμα ἔμφυτον*, which in turn, by setting in motion the abdominal membrane which produces, *e.g.*, the chirp of the cricket, causes it to act as a fan (for this is the sense in which we must understand 475, a, 11, 669, b, 1). Beside these passages, the statement in *Gen. An.* ii. 3, stands rather isolated. Granting that the *σῶμα θειότερον τῶν στοιχείων* there spoken of is distinguished from the *πνεῦμα* in which it resides (*ἡ ἐν τῷ πνεύματι φύσις*), it is yet hardly possible to attribute to it an æthereal nature. The truth seems rather to be that Aristotle here feels a want which his philosophy as a whole does not enable him to supply.—The writer of the spurious treatise *π. Πνεύματος* discusses the nature of the *πνεῦμα ἔμφυτον*, though he by no means confines himself to this subject. He gives no indication, however, of the view he held of its material character.—The question of the relation of Aristotle's assumptions with regard to the *πνεῦμα* to his doctrine of the Nous is for later discussion (see Ch. XI. on the Reason, *infra*).

[1] See p. 2, n. 2, *supra*, and *Metaph.* vii. 10, 1035, b, 14: *ἐπεὶ δὲ ἡ τῶν ζῴων ψυχὴ (τοῦτο γὰρ οὐσία τοῦ ἐμψύχου) ἡ κατὰ τὸν λόγον οὐσία καὶ τὸ εἶδος καὶ τὸ τί ἦν εἶναι τῷ τοιῷδε σώματι.* c. 11, 1037, a, 5: the body is the *ὕλη*, the soul the *οὐσία ἡ πρώτη.* viii. 3, 1043, a, 35. *De An.* ii. 2, 414, a, 12: as the form is everywhere distinguished from the matter which receives it, so is the soul *τοῦτο ᾧ ζῶμεν καὶ αἰσθανόμεθα καὶ διανοούμεθα πρώτως, ὥστε λόγος τις ἂν εἴη καὶ εἶδος, ἀλλ' οὐχ ὕλη καὶ τὸ ὑποκείμενον· τριχῶς γὰρ λε-*

between form and matter.[1] To ask whether soul and body are one, is just as ridiculous as to ask whether the wax and the form impressed upon it are one. They are and they are not: they are separable in thought, inseparable in reality.[2] Life is not a combination of soul and body,[3] and the living being is not something joined together of these two parts;[4] but the soul is the active force that operates in the body, or, if you will, the body is the natural organ of the soul. We cannot separate them any more than we can separate the eye and eyesight.[5] None but a living body deserves the name of body,[6] and a particular soul can only exist in its own particular body.[7] Therefore the Pythagorean

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γομένης τῆς οὐσίας, καθάπερ εἴπομεν, ὧν τὸ μὲν εἶδος, τὸ δὲ ὕλη, τὸ δὲ ἐξ ἀμφοῖν· τούτων δ' ἡ μὲν ὕλη δύναμις, τὸ δὲ εἶδος ἐντελέχεια· ἐπεὶ δὲ τὸ ἐξ ἀμφοῖν ἔμψυχον, οὐ τὸ σῶμά ἐστιν ἐντελέχεια ψυχῆς, ἀλλ' αὕτη σώματός τινος. καὶ διὰ τοῦτο καλῶς ὑπολαμβάνουσιν, οἷς δοκεῖ μήτ' ἄνευ σώματος εἶναι μήτε σῶμά τι ἡ ψυχή. σῶμα μὲν γὰρ οὐκ ἔστι, σώματος δέ τι. *De An.* ii. 1, 412, b, 11 sqq. thus illustrates: if the axe were a creature, its nature as an axe would be its soul; if the eye were a separate being, its eyesight (ὄψις) would be its soul, αὕτη γὰρ οὐσία ὀφθαλμοῦ ἡ κατὰ τὸν λόγον. ὁ δ' ὀφθαλμὸς ὕλη ὄψεως, ἧς ἀπολειπούσης οὐκ ἔστιν ὀφθαλμός. The soul is to the body as sight is to the eye.

[1] See i. 351, n. 1, *supra*.

[2] *De An.* ii. 1, 412, b, 6: the soul is the entelecheia of an organic body. διὸ καὶ οὐ δεῖ ζητεῖν εἰ ἓν ἡ ψυχὴ καὶ τὸ σῶμα, ὥσπερ οὐδὲ τὸν κηρὸν καὶ τὸ σχῆμα, οὐδ' ὅλως τὴν ἑκάστου ὕλην καὶ τὸ οὗ ὕλη.

[3] As perhaps the Platonists defined it, consistently with the account of death in *Phædo*, 64, C.

[4] *Metaph.* viii. 6, 1045, b, 11. *Top.* vi. 14 *init.*: ζῆν and the ζῷον are not a σύνθεσις ἢ σύνδεσμος of soul and body.

[5] *De An.* ii. 1, 413, a, 1: ὡς δ' ἡ ὄψις καὶ ἡ δύναμις τοῦ ὀργάνου ἡ ψυχή [sc. ἐντελέχειά ἐστιν]· τὸ δὲ σῶμα τὸ δυνάμει ὄν· ἀλλ' ὥσπερ ὁ ὀφθαλμὸς ἡ κόρη καὶ ἡ ὄψις, κἀκεῖ ἡ ψυχὴ καὶ τὸ σῶμα τὸ ζῷον.

[6] *Ibid.* 412, b, 11, 20, 25. *Part. An.* i. 1, 640, b, 33 sqq. 641, a, 18. *Gen. An.* ii. 5, 741, a, 10. *Meteor.* iv. 12, 389, b, 31, 390, a, 10. *Metaph.* vii. 10, 1035, b, 24.

[7] *De An.* ii. 2, 414, a, 21 (following on the passage quoted p. 8, n. 1, *supra*): καὶ διὰ τοῦτο ἐν σώματι ὑπάρχει, καὶ ἐν σώματι τοιούτῳ, καὶ οὐχ ὥσπερ οἱ πρότερον εἰς σῶμα ἐνήρμοζον αὐτὴν, οὐθὲν προσδιορίζοντες ἐν τίνι καὶ ποίῳ, καίπερ οὐδὲ φαινομένου τοῦ τυχόντος δέχεσθαι τὸ τυχόν. οὕτω δὲ γίνεται καὶ κατὰ λόγον· ἑκάστου γὰρ ἡ ἐντελέχεια

notion of one soul passing through bodies of the most various sorts is just as absurd as if one should imagine that one and the same art could use tools of the most various kinds indifferently—that a flute, for example, could be of the same use to a carpenter as an axe.[1]

The true essence of everything is its form, and the essence of everything that comes into being is its purpose or end.[2] Living creatures are no exception to this law. Every living creature is a little world, a whole, the parts of which subserve as instruments the purpose of the whole.[3] But every instrument depends upon the nature of the work for which it is designed; so the body exists for the soul, and the qualities of every body are determined by those of its soul.[4] Nature, like a

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ἐν τῷ δυνάμει ὑπάρχοντι καὶ τῇ οἰκείᾳ ὕλῃ πέφυκεν ἐγγίνεσθαι. Cf. the passages quoted, i. 221, n. 1, *supra*, from *Phys.* ii. 9, and elsewhere.

[1] *De An.* i. 3, 407, b, 13: most writers (Aristotle is thinking principally of Plato) make the mistake of speaking of the union of soul and body, οὐθὲν προσδιορίσαντες, διὰ τίν' αἰτίαν καὶ πῶς ἔχοντος τοῦ σώματος. καίτοι δόξειεν ἂν τοῦτ' ἀναγκαῖον εἶναι· διὰ γὰρ τὴν κοινωνίαν τὸ μὲν ποιεῖ τὸ δὲ πάσχει καὶ τὸ μὲν κινεῖται τὸ δὲ κινεῖ, τούτων δ' οὐθὲν ὑπάρχει πρὸς ἄλληλα τοῖς τυχοῦσιν. οἱ δὲ μόνον ἐπιχειροῦσι λέγειν ποῖόν τι ἡ ψυχὴ, περὶ δὲ τοῦ δεξομένου σώματος οὐθὲν ἔτι προσδιορίζουσιν, ὥσπερ ἐνδεχόμενον κατὰ τοὺς Πυθαγορικοὺς μύθους τὴν τυχοῦσαν ψυχὴν εἰς τὸ τυχὸν ἐνδύεσθαι σῶμα· δοκεῖ γὰρ ἕκαστον ἴδιον ἔχειν εἶδος καὶ μορφήν. παραπλήσιον δὲ λέγουσιν ὥσπερ εἴ τις φαίη τὴν τεκτονικὴν εἰς αὐλοὺς ἐνδύεσθαι· δεῖ γὰρ τὴν μὲν τέχνην χρῆσθαι τοῖς ὀργάνοις, τὴν δὲ ψυχὴν τῷ σώμαπι (cf. p. 8, n. 1, *supra, ad fin.*)

[2] See i. 375, n. 1, and i. 459, sqq. *supra*. The expression, *Part. An.* i. 1, 640, b, 28, ἡ γὰρ κατὰ τὴν μορφὴν φύσις κυριωτέρα τῆς ὑλικῆς φύσεως, is used with reference to the above question of the relation of soul and body.

[3] See p. 3, n. 2, *supra*, and *Phys.* viii. 2, 252, b, 24: εἰ δ' ἐν ζῴῳ τοῦτο δυνατὸν γενέσθαι, τί κωλύει τὸ αὐτὸ συμβῆναι καὶ κατὰ τὸ πᾶν; εἰ γὰρ ἐν μικρῷ κόσμῳ γίνεται, καὶ ἐν μεγάλῳ.

[4] *Part. An.* i. 1, 640, b, 22 sqq. concluding (641, a, 29): ὥστε καὶ οὕτως ἂν λεκτέον εἴη τῷ περὶ φύσεως θεωρητικῷ περὶ ψυχῆν μᾶλλον ἢ περὶ τῆς ὕλης, ὅσῳ μᾶλλον ἡ ὕλη δι' ἐκείνην φύσις ἐστὶν ἢ ἀνάπαλιν. c. 5, 645, b, 14: ἐπεὶ δὲ τὸ μὲν ὄργανον πᾶν ἕνεκά του, τῶν δὲ τοῦ σώματος μορίων ἕκαστον ἕνεκά του, τὸ δ' οὗ ἕνεκα πρᾶξίς τις,

judicious manager, gives to each the instrument it can use.[1] Instead, therefore, of deducing the spiritual from the corporeal, as the elder physicists had done, Aristotle takes the opposite path, describing the soul's life as the end and the body's life as the means. While Anaxagoras had said that man was the most rational being because he had hands, Aristotle denies any truth to this dictum unless it be reversed—man has hands because he is the most rational being; for the instrument must be fitted to its work, not the work to its instrument.[2] The nature of the instrument is not, indeed, a matter of indifference in respect to the result: anything cannot be made out of any substance or by any means;[3] but this does not negative the fact that the choice of the instrument depends upon the purpose in view.[4] It is perfectly obvious that it does in the case

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φανερὸν ὅτι καὶ τὸ σύνολον σῶμα συνέστηκε πράξεώς τινος ἕνεκα πλήρους. . . . ὥστε καὶ τὸ σῶμά πως τῆς ψυχῆς ἕνεκεν, καὶ τὰ μόρια τῶν ἔργων πρὸς ἃ πέφυκεν ἕκαστον. *Metaph.* vii. 10, 1035, b, 14 sqq. *De An.* ii. 4; see p. 2, n. 3, *supra.*

[1] *Part. An.* iv. 10, 687, a, 10: ἡ δὲ φύσις ἀεὶ διανέμει, καθάπερ ἄνθρωπος φρόνιμος, ἕκαστον τῷ δυναμένῳ χρῆσθαι. *Ibid.* c. 8, 684, a, 28: ἡ δὲ φύσις ἀποδίδωσιν ἀεὶ τοῖς χρῆσθαι δυναμένοις ἕκαστον ἢ μόνως ἢ μᾶλλον. iii. 1, 661, b, 26 sqq.: of those organs which serve for purposes of defence or are indispensable to the support of life, ἕκαστα ἀποδίδωσιν ἡ φύσις τοῖς δυναμένοις χρῆσθαι μόνοις ἢ μᾶλλον, μάλιστα δὲ τῷ μάλιστα. Hence the female is usually either wholly or in part unprovided with defensive organs.

[2] *Part. An.* iv. 10, 687, a, 7–23, especially the words just after the passage quoted above: προσήκει γὰρ τῷ ὄντι αὐλητῇ δοῦναι μᾶλλον αὐλοὺς ἢ τῷ αὐλοὺς ἔχοντι προσθεῖναι αὐλητικήν· τῷ γὰρ μείζονι καὶ κυριωτέρῳ προσέθηκε τοὔλαττον, ἀλλ' οὐ τῷ ἐλάττονι τὸ τιμιώτερον καὶ μεῖζον . . . . τῷ οὖν πλείστας δυναμένῳ δέξασθαι τέχνας τὸ ἐπὶ πλεῖστον τῶν ὀργάνων χρήσιμον τὴν χεῖρα ἀποδέδωκεν ἡ φύσις.

[3] See pp. 9, n. 7, and 10, n. 1, *supra.*

[4] There is, therefore, no real inconsistency between the doctrine previously laid down and the statements, *Gen. An.* ii. 6, 744, a, 30, that man's intelligence affords proof of the εὐκρασία of the central organ of his life; *Part. An.* ii. 2, 648, a, 2 sqq. c. 4, 651, a, 12, that greater intelli-

of organic beings. The adjustment of means to end which prevails in nature here displays itself in its fullest perfection.[1] To them we may with most propriety apply the axiom that Nature always produces the best that was possible under the given circumstances.[2]

This working towards fixed ends begins to show itself in the nutrition and development of organisms. Nutrition is not a mere operation of warmth, as was supposed; warmth may be important in the process, but it is always the soul that regulates it and directs it to a certain definite result.[3] Nor can we adopt the theory suggested by Empedocles for explaining the growth of plants by saying that the fiery element tends upwards and the earthy downwards in their composition; if so,

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gence is a consequence of thinner and cooler blood; *ibid.* iv. 10, 686, b, 22, that the meaner intelligence of animals, children, and dwarfs is to be explained on the ground of the earthliness and immobility of the organ which their souls must employ; *De Respir.* 13, 477, a 16, that warmer animals have nobler souls, and *De An.* ii. 9, 421, a, 22, that man excels all other creatures in the fineness of his sense of touch διὸ καὶ φρονιμώτατόν ἐστι τῶν ζῴων, and that among men those who are white, and therefore have a more delicate sensibility, are mentally more highly endowed (cf. also *Metaph.* i. 1, 980, b, 23). Mental activity may be phenomenally dependent upon certain conditions which in turn exist only for its sake: that which in reality is the primary and conditioning principle may appear to follow in time as a later and conditioned result; cf. *Part. An.* ii. i. 646, a, 24. Further consideration, however, reveals the logical difficulties in which we are thus involved. The soul's development is said on the one hand to be conditioned by the capabilites of its body, the character of the body on the other hand is conditioned by the requirements of the soul—which, then, is primary and conditioning? If the soul, why has it not a body which permits a higher development of its powers? If the body, how can it be itself treated as though it were the mere tool of the soul?

[1] *Meteor.* iv. 12; see i. 468, n. 5, *supra.*

[2] See the discussion, *supra.* i. p. 459 sqq. The statements there made refer for the most part principally to the organic nature.

[3] *De An.* ii. 4, 416, a, 9: δοκεῖ δέ τισιν ἡ τοῦ πυρὸς φύσις ἁπλῶς

what keeps the two together and prevents their separation?[1] The same applies to the structure of the organism. It is impossible to explain even the origin of organic creatures[2] on the supposition that their separate parts are formed and brought together by a blind and purposeless necessity, only those combinations surviving which succeed in producing from an aimless stream of matter a being adapted to an end and capable of life.[3] For chance produces only isolated and abnormal results. When, on the other hand, we are dealing with the normal adaptations of Nature we are forced to regard them as purposely designed by her from the beginning.[4] But this is precisely what we

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αἰτία τῆς τροφῆς καὶ τῆς αὐξήσεως εἶναι.... τὸ δὲ συναίτιον μέν πώς ἐστιν, οὐ μὴν ἁπλῶς γε αἴτιον, ἀλλὰ μᾶλλον ἡ ψυχή. ἡ μὲν γὰρ τοῦ πυρὸς αὔξησις εἰς ἄπειρον, ἕως ἂν ᾖ τὸ καυστὸν, τῶν δὲ φύσει συνισταμένων πάντων ἐστὶ πέρας καὶ λόγος μεγέθους τε καὶ αὐξήσεως· ταῦτα δὲ ψυχῆς, ἀλλ' οὐ πυρὸς, καὶ λόγου μᾶλλον ἢ ὕλης. Cf. p. 14, n, 2, *inf.*; and upon αἴτιον and συναίτιον, *supra*, i. p. 360, n. 1, and p. 463, n. 1.

[1] *Ibid.* 415, b, 28 sqq.

[2] As Empedocles tries to do; see following note. We cannot suppose, however, that Empedocles (or any other of the pre-Aristotelian philosophers) expressed the theories of which he is chosen by Aristotle as the representative, in so general a sense as is here attributed to him.

[3] *Phys.* ii. 8, 198, b, 16, Aristotle starts the question: τί κωλύει τὴν φύσιν μὴ ἕνεκά του ποιεῖν μηδ' ὅτι βέλτιον, ἀλλ' ὥσπερ ὕει ὁ Ζεὺς &c. [see i. 471, *supra*] . . . ὥστε τί κωλύει οὕτω καὶ τὰ μέρη ἔχειν ἐν τῇ φύσει, οἷον τοὺς ὀδόντας ἐξ ἀνάγκης ἀνατεῖλαι τοὺς μὲν ἐμπροσθίους ὀξεῖς, ἐπιτηδείους πρὸς τὸ διαιρεῖν, τοὺς δὲ γομφίους πλατεῖς καὶ χρησίμους πρὸς τὸ λεαίνειν τὴν τροφὴν, ἐπεὶ οὐ τούτου ἕνεκα γενέσθαι, ἀλλὰ συμπεσεῖν. ὁμοίως δὲ καὶ περὶ τῶν ἄλλων μερῶν, ἐν ὅσοις δοκεῖ ὑπάρχειν τὸ ἕνεκά του. ὅπου μὲν οὖν ἅπαντα συνέβη ὥσπερ κἂν εἰ ἕνεκά του ἐγίνετο, ταῦτα μὲν ἐσώθη ἀπὸ τοῦ αὐτομάτου συστάντα ἐπιτηδείως· ὅσα δὲ μὴ οὕτως, ἀπώλετο καὶ ἀπόλλυται, καθάπερ Ἐμπεδοκλῆς λέγει τὰ βουγενῆ ἀνδρόπρωρα.

[4] Ἀδύνατον δὲ [Aristotle answers, *ibid.* 198, b, 34] τοῦτον ἔχειν τὸν τρόπον. ταῦτα μὲν γὰρ καὶ πάντα τὰ φύσεί ἢ ἀεὶ οὕτω γίνεται ἢ ὡς ἐπὶ τὸ πολὺ, τῶν δ' ἀπὸ τύχης καὶ τοῦ αὐτομάτου οὐδέν. . . . εἰ οὖν ἢ ὡς ἀπὸ συμπτώματος δοκεῖ ἢ ἕνεκά του εἶναι, εἰ μὴ οἷόν τε ταῦτ' εἶναι μήτε ἀπὸ συμπτώματος μήτ' ἀπὸ ταὐτομάτου, ἕνεκά του ἂν εἴη. In further proof of design in nature, he adds: ἔτι ἐν ὅσοις

are doing in the case of a living being. What makes a living body is not the separate material elements, but their special and peculiar combination, the form of the whole to which they pertain.[1] We cannot explain its structure by the mere operation of elementary forces working in matter, but only by the operation of the soul, which employs these forces as instruments in giving form to matter.[2] Nature makes only those organs that are fitted for the purpose of each organism, and creates them in order, according to their several uses.[3] First she forms the parts on which the life and growth of the being depend;[4] then the remaining most important parts

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τέλος ἐστί τι, τούτου ἕνεκα πράττεται τὸ πρότερον καὶ τὸ ἐφεξῆς. οὐκοῦν ὡς πραττεται, οὕτω πέφυκε, καὶ ὡς πέφυκεν, οὕτω πράττεται ἕκαστον ἂν μή τι ἐμποδίζῃ. πράττεται δ' ἕνεκά του· καὶ πέφυκεν ἄρα τούτου ἕνεκα. Cf. i. 462, n. 2, *supra*.

[1] *Part. An.* i. 5, 645, a, 30: just as when we speak of a house or furniture, we mean, not the material of which it is made, but the *ὅλη μορφὴ*, so in the investigation of nature we speak *περὶ τῆς συνθέσεως καὶ τῆς ὅλης οὐσίας, ἀλλὰ μὴ περὶ τούτων ἃ μὴ συμβαίνει χωριζόμενά ποτε τῆς οὐσίας αὐτῶν.*

[2] *Gen. An.* ii. 4, 740, b, 12: *ἡ δὲ διάκρισις γίγνεται τῶν μορίων* [in the formation of the fœtus] *οὐχ ὥς τινες ὑπολαμβάνουσι, διὰ τὸ πεφυκέναι φέρεσθαι τὸ ὅμοιον πρὸς τὸ ὅμοιον* (and therefore as in elementary processes); for in that case homogeneous parts, flesh, bones, &c., would unite in separate masses; *ἀλλ' ὅτι τὸ περίττωμα τὸ τοῦ θήλεως δυνάμει τοιοῦτόν ἐστιν οἷον φύσει τὸ ζῷον, καὶ ἔνεστι δυνάμει τὰ μόρια ἐνεργείᾳ δ' οὐθέν. . . καὶ ὅτι τὸ ποιητικὸν καὶ τὸ παθητικὸν, ὅταν θίγωσιν, . . εὐθὺς τὸ μὲν ποιεῖ τὸ δὲ πάσχει. . . ὥσπερ δὲ τὰ ὑπὸ τῆς τέχνης γινόμενα γίνεται διὰ τῶν ὀργάνων, ἔστι δ' ἀληθέστερον εἰπεῖν διὰ τῆς κινήσεως αὐτῶν, αὕτη δ' ἐστὶν ἡ ἐνέργεια τῆς τέχνης, ἡ δὲ τέχνη μορφὴ τῶν γιγνομένων ἐν ἄλλῳ, οὕτως ἡ τῆς θρεπτικῆς ψυχῆς δύναμις, ὥσπερ καὶ ἐν αὐτοῖς τοῖς ζῴοις καὶ τοῖς φυτοῖς ὕστερον ἐκ τῆς τροφῆς ποιεῖ τὴν αὔξησιν, χρωμένη οἷον ὀργάνοις θερμότητι καὶ ψυχρότητι (ἐν γὰρ τούτοις ἡ κίνησις ἐκείνης καὶ λόγῳ τινὶ ἕκαστον γίνεται) οὕτω καὶ ἐξ ἀρχῆς συνίστησι τὸ φύσει γιγνόμενον.*

[3] *Ibid.* ii. 6, 744, a, 36: *ἐπεὶ δ' οὐθὲν ποιεῖ περίεργον οὐδὲ μάτην ἡ φύσις, δῆλον ὡς οὐδ' ὕστερον οὐδὲ πρότερον. ἔσται γὰρ τὸ γεγονὸς μάτην ἢ περίεργον.*

[4] In the lower animals the heart or the organ that corresponds to it; *Gen. An.* ii. 1, 735, a, 23.

of the organism; and lastly the instruments which it employs for special purposes.[1] The nutritive soul is developed first, as forming the common basis of all life; and next the several functions of the soul by which each higher organism raises itself above that which precedes it in the scale of being. First comes *a* living being, and next some *special* sort of being.[2] In obedience to the same law the organism is dissolved in the reverse order. That which life can least dispense with dies last, the less vital organs first; so that Nature works round in a circle to her starting point.[3] All parts and functions of the living creature exhibit the same proofs of contrivance, and can only be explained as the product of design. Accordingly all Aristotle's researches into the corporeal nature of animals are governed by this view. The essential and decisive causes are always final causes,[4] and whatever leads in the ordinary course of nature to a definite end must have existed for that end.[5] He tries to prove that every organ is just what it must have been in order to fulfil its purpose in the best possible way according to the means at hand.[1] He points out how every animal is provided with organs adapted to its mode of life, or how the common organs of a tribe are modified to meet its special needs.[2] Nor does he neglect the interdependence of the different members: distinguishing the principal organs which directly serve to fulfil the end of life, from those which are added for their protection and maintenance;[3] and remarking that Nature always affords the strongest protection to the noblest and the weakest parts,[4] that, where one organ is not equal to its task, she makes or modifies another for the purpose,[5] and that she places organs of opposite character near one another, in order that each may temper and supplement the action of the other.[6] He sees in the artistic instincts of animals an obvious example of unconscious contrivance in Nature.[1] Nor does he forget the influence of necessity, which here, as elsewhere, cooperates with Nature in the realisation of her designs.[2] Indeed, he expressly requires observers of nature to make use of both causes in their explanations.[3] Still he holds fast to the belief that physical causes are only means employed by Nature for her ends, and that their necessity is only conditional;[4] nor does he cease to marvel at the wisdom with which Nature makes use of the materials suited to her purposes, and overcomes the opposition of such as are antagonistic. Like a good housewife, she employs the dregs and refuse of animal life for beneficial purposes, and suffers nothing to be wasted.[5] She turns everything to the best possible account;[6] if she can make one organ serve, she does not give an animal several for the same function;[1] if she needs materials for strengthening one member, she despoils another which appears less indispensable;[2] if she can achieve several objects by one

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[1] *Gen. An.* ii. 6, 742, a, 16–b, 6, c. 1, 734, a, 12, 26.

[2] *Gen. An.* ii. 3, 736, a, 27–b, 14 (cf. 737, b, 17, c. 1, 735, a, 4 sqq.). As the inhabitant of a material body, the soul may be said to exist potentially in the seed. In the evolution of the living being the nutritive soul comes first, next the sensitive and rational: first comes a ζῷον, then a definite ζῷον, *e.g.* a horse or a man. ὕστερον γὰρ γίνεται τὸ τέλος, τὸ δ' ἴδιόν ἐστι τὸ ἑκάστου τῆς γενέσεως τέλος.

[3] *Ibid.* c. 5, 741, b, 18: that the heart is the central organ is seen at death; ἀπολείπει γὰρ τὸ ζῆν ἐντεῦθεν τελευταῖον, συμβαίνει δ' ἐπὶ πάντων τὸ τελευταῖον γινόμενον πρῶτον ἀπολείπειν, τὸ δὲ πρῶτον τελευταῖον, ὥσπερ τῆς φύσεως διαυλοδρομούσης καὶ ἀνελιττομένης ἐπὶ τὴν ἀρχὴν ὅθεν ἦλθεν. ἔστι γὰρ ἡ μὲν γένεσις ἐκ τοῦ μὴ ὄντος εἰς τὸ ὄν, ἡ δὲ φθορὰ ἐκ τοῦ ὄντος πάλιν εἰς τὸ μὴ ὄν.

[4] Cf. i. 459, sqq. *supra.*

[5] Cf. p. 17, *infra.*

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[1] Proofs of this, the most important of which will call for future discussion, are given throughout the whole work *De Part. An.*, and in many passages of Aristotle's other zoological and anthropological works.

[2] Thus the elephant, being not only a land-animal, but leading also an amphibious life in morasses, is provided with a proboscis that it may breathe more easily under water; *Part. An.* ii. 16, 658, b, 33 sqq. In like manner the form of birds' beaks depends upon the nature of their food, as is shown (*ibid.* iii. 1, 662, b, 1, sqq. iv. 12, 693, a, 10 sqq.) in the case of birds of prey, the woodpecker, the raven, grain- and insect-eaters, water- and moorfowl. Dolphins, again, and sharks (*ibid.* iv. 13, 696, b, 24) have the mouth in the upper part of their bodies to enable other animals to escape from them more easily, and to prevent them from doing injury to themselves by their voracity.

[3] The flesh, for example, is the principle organ of sense-perception; bones, on the other hand, nerves, veins, skin, hair, nails, &c., exist merely for its sake, as is shown *Part. An.* ii. 8.

[4] ZELLER, *Ph. d. Gr.* ii. 14, 658, b, 2 sqq., iii. 11. 673, b, 8, iv. 10, 690, b, 9.

[5] *Ibid.* iv. 9, 685, a, 30.

[6] *Ibid.* ii. 7, 652, a, 31: *ἀεὶ γὰρ ἡ φύσις μηχανᾶται πρὸς τὴν ἑκάστου ὑπερβολὴν βοήθειαν τὴν τοῦ ἐναντίου παρεδρίαν, ἵνα ἀνισάζῃ τὴν θατέρου ὑπερβολὴν θάτερον.* b, 16: *ἐπεὶ δ' ἅπαντα δεῖται τῆς ἐναντίας ῥοπῆς, ἵνα τυγχάνῃ τοῦ μετρίου καὶ τοῦ μέσου*: thus the head counterbalances the heart.

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[1] *Phys.* ii. 8, 199, a, 20: *μάλιστα δὲ φανερὸν ἐπὶ τῶν ζῴων τῶν ἄλλων, ἃ οὔτε τέχνῃ οὔτε ζητήσαντα οὔτε βουλευσάμενα ποιεῖ. ὅθεν διαποροῦσί τινες πότερον νῷ ἤ τινι ἄλλῳ ἐργάζονται οἵ τ' ἀράχναι καὶ οἱ μύρμηκες καὶ τὰ τοιαῦτα. κατὰ μικρὸν δ' οὕτω προϊόντι καὶ ἐν τοῖς φυτοῖς φαίνεται τὰ συμφέροντα γινόμενα πρὸς τὸ τέλος, οἷον τὰ φύλλα τῆς τοῦ καρποῦ ἕνεκα σκέπης. ὥστ' εἰ φύσει τε ποιεῖ καὶ ἕνεκά του ἡ χελιδὼν τὴν νεοττιὰν καὶ ὁ ἀράχνης τὸ ἀράχνιον, καὶ τὰ φυτὰ τὰ φύλλα ἕνεκα τῶν καρπῶν καὶ τὰς ῥίζας οὐκ ἄνω ἀλλὰ κάτω ἕνεκα τῆς τροφῆς, φανερὸν ὅτι ἐστὶν ἡ αἰτία ἡ τοιαύτη ἐν τοῖς φύσει γινομένοις καὶ οὖσιν.* Cf. i. 463, n. 1.

[2] See i. 360, n. 1, *supra*.

[3] *Ibid.* and *Part. An.* i. 1, 643, a, 14: *δύο τρόποι τῆς αἰτίας καὶ δεῖ λέγοντας τυγχάνειν μάλιστα μὲν ἀμφοῖν*, &c. (Cf. PLATO, *Tim.* 46, C; *Div.* i. 642, 6). In discussing individual parts of the body he frequently gives both sides in succession, *e.g. Part.* ii. 14, 658, b, 2: man has thicker hair than any other animal, *ἐξ ἀγάγκης μὲν διὰ τὴν ὑγρότητα τοῦ ἐγκεφάλου καὶ διὰ τὰς ῥαφὰς, . . . ἕνεκεν δὲ βοηθείας, ὅπως σκεπάζωσι*, &c.

[4] The proofs have already been given, i. 360, n. 1, *supra*.

[5] See i. 465, n. 2, *supra*.

[6] Thus, for example (*Part. An.* iii. 14, 675, b, 17 sqq.), the intestines are coiled tightly together, *ὅπως ταμιεύηται ἡ φύσις καὶ μὴ ἀθρόος ᾖ ἡ ἔξοδος τοῦ περιττώματος*, especially in those animals which are destined for a frugal manner of life. The same thought had already been expressed in PLATO, *Tim.* 72, E.

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[1] Thus Aristotle explains (*Part. An.* iii. 2) that different animals are provided with different means of defence, some with horns, others with claws, some with size, others with fleetness, others again with repulsive excrement; *ἅμα δ' ἱκανὰς καὶ πλείους βοηθείας οὐ δέδωκεν ἡ φύσις τοῖς αὐτοῖς.* Again, *ibid.* iv. 12, 694, a, 12, he remarks that birds which have a spur are not endowed with bent talons also; *αἴτιον δ' ὅτι οὐδὲν ἡ φύσις ποιεῖ περίεργον.* Again, *Respir.* 10, 476, a, 6 sqq.: gills and lungs never exist together, *ἐπεὶ μάτην οὐδὲν ὁρῶμεν ποιοῦσαν τὴν φύσιν, δυοῖν δ' ὄντοιν θάτερον ἂν ἦν μάτην* (just before he says: *ἓν δ' ἐφ' ἓν ὄργανον χρήσιμον*). And again, *Part.* iii. 14, 674, a, 19 sqq.: animals which have more perfect masticating organs (i.e. *ἀμφώδοντα*) are supplied with a simpler digestive apparatus: those which are defective in the former respect, on the other hand, have several stomachs; after enumerating several species of animals which belong to the former class, he proceeds, 674, a, 28: those animals which, like the camel, require more than one stomach on account of their great size and the coarseness of their food, form an exception to the rule; the teeth and stomach of the camel resemble those of horned animals *διὰ τὸ ἀναγκαιότερον εἶναι αὐτῇ τὴν κοιλίαν ἔχειν τοιαύτην ἢ τοὺς προσθίους ὀδόντας*, it can do without the latter *ὡς οὐδὲν ὄντας προὔργου.*

[2] *Gen. An.* iii. 1, 749, b, 34: thin animals have a greater power of procreation; *ἡ γὰρ εἰς τὰ κῶλα τροφὴ τρέπεται τοῖς τοιούτοις εἰς περίττωμα σπερματικόν· ὃ γὰρ ἐκεῖθεν ἀφαιρεῖ ἡ φύσις, προστίθησιν ἐνταῦθα.* *Part. An.* ii. 14, 658, a, 31: in long-tailed animals, the hairs of the tail are shorter, in short-tailed, longer, and the same is true of the other parts of the body; *πανταχοῦ γὰρ ἀποδίδωσι* [*ἡ φύσις*] *λαβοῦσα ἑτέρωθεν πρὸς ἄλλο μόριον*, cf. *ibid.* c. 9, 655, a, 27: *ἅμα δὲ τὴν αὐτὴν ὑπεροχὴν εἰς πολλοὺς τόπους ἀδυνατεῖ διανέμειν ἡ φύσις.* For further explanations *v.* Meyer (to whom I gratefully acknowledge my obligations for much of this section), *Arist. Thierk.* 468: 'Nature employs the earthy refuse either for horns or double rows of teeth' (see *Part. An.* iii. 2, 663, b, 31, 664, a, 8—or, as in the case of the camel, for a hard palate, *ibid.* c. 14, 674, b, 2). 'The bear, which has a hairy body, must be content with a stunted tail (*ibid.* ii. 14, 658, a, 36). In the case of mammals, the earthy material has been employed for their tails, and accordingly, unlike man, they have no flesh upon their legs (*ibid.* iv. 10, 689, b, 21). Sharks, again, require this earthy material to give their skins the proper thickness, and accordingly have mere gristle for

organ, she makes it do the work;[1] although, when this arrangement will not serve, she is no niggard in her contrivances:[2] of the different materials which she has at her disposal she employs the best upon the nobler and the worse upon the less important members.[3] Even in the cases where one cannot attribute any definite utility to certain structures, they are not without a design; for Aristotle thinks that their end may be

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their skeletons (*ibid.* ii. 9, 655, a, 23).' Meyer quotes further examples from *Part. An.* ii. 13, 657, b, 7, iv. 9, 685, a, 24. Cf. also *Part. An.* iii. 2, 663, a, 31.

[1] Thus the mouth, besides the common purpose of eating, serves various other ends in the various animals, and is thus variously formed; *ἡ γὰρ φύσις . . . τοῖς κοινοῖς πάντων μορίοις εἰς πολλὰ τῶν ἰδίων καταχρῆται . . . ἡ δὲ φύσις πάντα συνήγαγεν εἰς ἕν, ποιοῦσα διαφορὰν αὐτοῦ τοῦ μορίου πρὸς τὰς τῆς ἐργασίας διαφοράς.* (*Part. An.* iii. 1, 662, a, 18, cf. *Respir.* c. 11 *init.*) Likewise the tongue (*Respir. ibid.*; *Part.* ii. 17). The hand (*Part.* iv. 10, 687, a, 19) is *οὐχ ἓν ὄργανον ἀλλὰ πολλά· ἔστι γὰρ ὡσπερεὶ ὄργανον πρὸ ὀργάνων* (cf. *De An.* iii. 8, 432, a, 1); it is (b, 2) *καὶ ὄνυξ καὶ χηλὴ καὶ κέρας καὶ δόρυ καὶ ξίφος καὶ ἄλλο ὁποιονοῦν ὅπλον καὶ ὄργανον*, &c.; and similarly the breasts of women, *Part. An.* iv. 10, 688, a, 19 sqq., the trunk of the elephant, *ibid.* ii. 16, 659, a, 20, and the tails of animals, *ibid.* iv. 10, 690, a, 1 (among other passages).

[2] *Part. An.* iv. 6, 683, a, 22: *ὅπου γὰρ ἐνδέχεται χρῆσθαι δυσὶν ἐπὶ δύ' ἔργα καὶ μὴ ἐμποδίζειν πρὸς ἕτερον, οὐδὲν ἡ φύσις εἴωθε ποιεῖν ὥσπερ ἡ χαλκευτικὴ πρὸς εὐτέλειαν ὀβελισκολύχνιον·* (on this GÖTTLING, *De Machæra Delphica*, Ind. lect. Jen. 1856, p. 8); *ἀλλ' ὅπου μὴ ἐνδέχεται καταχρῆται τῷ αὐτῷ ἐπὶ πλείω ἔργα.* *Polit.* i. 2, 1252, b, 1: *οὐθὲν γὰρ ἡ φύσις ποιεῖ τοιοῦτον οἷον χαλκοτύποι τὴν Δελφικὴν μάχαιραν* [GÖTTLING, *ibid.*; ONCKEN, *Staatsl. d. Ar.* ii. 25, who both fail, however, to give a complete account of the matter] *πενιχρῶς, ἀλλ' ἓν πρὸς ἕν· οὕτω γὰρ ἂν ἀποτελοῖτο κάλλιστα τῶν ὀργάνων ἕκαστον, μὴ πολλοῖς ἔργοις ἀλλ' ἑνὶ δουλεῦον.* MEYER, *Arist. Thierk.* 470, rightly remarks that these statements are inconsistent with the principles of the parsimony of nature as previously laid down, and even although we grant that it is possible to find, with Aristotle, a basis of reconciliation in the phrase *ὅπου ἐνδέχεται*, we cannot deny that there is a certain arbitrariness in the way in which it is applied.

[3] *Gen. An.* ii. 6, 744, b, 11 sqq., where Nature's management is compared in this respect with that of a household in which the free members receive the best food, the servants a coarse quality, and the domestic animals the worst.

fulfilled in the very symmetry and perfection of their form,[1] and that this explains why many animals have organs, or at least the indications of them, which they do not use.[2] It is only where he cannot discover the least trace of purpose that our philosopher can bring himself to explain a phenomenon by chance or blind necessity.[3]

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[1] He treats it, for example, as a universal law that all the organs should be in pairs (*διφυῆ*), seeing that the body has a right and a left, a front and a back, an upper and a lower (*Part. An.* iii. 7 *init.* c. 5, 667, b, 31 sqq.). Even where to all appearance there is only a single organ, he exerts himself to prove that it is double (*ibid.* 669, b, 21: *διόπερ καὶ ὁ ἐγκέφαλος βούλεται διμερὴς εἶναι πᾶσι καὶ τῶν αἰσθητηρίων ἕκαστον. κατὰ τὸν αὐτὸν δὲ λόγον ἡ καρδία ταῖς κοιλίαις.* Likewise the lungs). Another typical law is that the nobler parts, where it is possible, should be in the upper part, in front and on the right as the better position (*Part. An.* iii. 3, 665, a, 23, b, 20, c. 5, 667, b, 34, cf. c. 7, 670, b, 30, c. 9, 672, a, 24, c. 10, 672, b, 19 sqq.); so, likewise, that the locomotive impulse (the ἀρχὴ) should proceed for the same reason from this quarter (*Ingr. An.* 5, 706, b, 11); cf. Ch. X. on Animals. The same æsthetic conception of Nature's contrivances is expressed in the observation, *Part. An.* ii. 14, 658, a, 15 sqq., that men are better protected in front than behind, the front being the nobler (*τιμιωτέρα*) side, and therefore demanding stronger defences; and in l. 30 of the same passage, where the hairs of the tail of the horse and other animals are described as merely ornamental.

[2] The hind, while it has no horns, has teeth like the stag, because it belongs to a horned class; and similarly in certain species of crabs the female has claws which belong properly only to the male, *ὅτι ἐν τῷ γένει εἰσι τῷ ἔχοντι χηλάς* (*Part. An.* iii. 2, 664, a, 3, iv. 8, 684, a, 33). Again, spleen, which is a necessity only to viviparous animals, and is therefore more strongly developed in these, is yet found to exist in all (*πάμμικρον ὥσπερ σημείου χάριν*) as a kind of counterpoise to the liver, which is on the right side of the body and therefore requires something to correspond to it on the left, *ὥστ' ἀναγκαῖον μέν πως, μὴ λίαν δ' εἶναι πᾶσι τοῖς ζῴοις* (*Part. An.* iii. 7, 669, b, 26 sqq. c 4, 666, a, 27, cf. *H. An.* ii. 15, 506, a, 12). Similarly the monkey, belonging as it does to the four-footed races, is endowed with a tail *ὅσον σημείου χάριν*, *H. An.* ii. 8, 502, b, 22, c. 1, 498, b, 13. Cf. Meyer, p. 464 sq.; Eucken, *Meth. d. arist. Forsch.* 104 sqq., 91.

[3] A purposeless creation of this kind (*περίττωμα*) he finds in the gall (*Part. An.* iv. 2, 677, a,

This prevalence of design in nature shows itself, as we have seen before (i. 466 sqq.), in a gradual progression, a continual process of development. The various functions of the soul and life are not shared by all living creatures in equal perfection, but different forms of animation, and different parts of the soul, may be distinguished, which determine the gradations of animate life. Plants are confined to nutrition and propagation; the nutritive soul alone is active in them.[1] Beasts add to this the sensitive soul, for sensation is the most universal mark of distinction between beasts and plants.[2] The lowest form of sensation, common to all animals, is the sense of touch; here begins the feeling of pain and pleasure, and the appetites, among which

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11 sqq.; see i. 361, n. 1, *supra*). Upon necessity and chance, p. 359 sqq. *supra*.

[1] *De An.* ii. 2 (see i. 511, n. 2, *supra*). *Ibid.* 413, b, 7: *θρεπτικὸν δὲ λέγομεν τὸ τοιοῦτον μόριον τῆς ψυχῆς οὗ καὶ τὰ φυτὰ μετέχει.* c. 3 *init.* c. 4, 415, a, 23; *ἡ γὰρ θρεπτικὴ ψυχὴ καὶ τοῖς ἄλλοις ὑπάρχει, καὶ πρώτη καὶ κοινοτάτη δύναμίς ἐστι ψυχῆς, καθ' ἣν ὑπάρχει τὸ ζῆν ἅπασιν. ἧς ἐστὶν ἔργα γεννῆσαι καὶ τροφῇ χρῆσθαι.* *Hist. An.* viii. 1, 588, b, 24; *Gen. An.* i. 23, 731, a, 24, procreation alone is mentioned as the peculiar function of the vegetable sense; and *De An.* ii. 4, 416, b. 23, it is said: *ἐπεὶ δὲ ἀπὸ τοῦ τέλους ἅπαντα προσαγορεύειν δίκαιον, τέλος δὲ τὸ γεννῆσαι οἷον αὐτὸ, εἴη ἂν ἡ πρώτη ψυχὴ γεννητικὴ οἷον αὐτό.* On the other hand, *Gen. An.* ii. 4, 740, b, 34 sqq. (cf. c. 1, 735, a, 16), shows that it is one and the same living energy which first forms and afterwards nourishes the body, but that the former is the more important function; *εἰ οὖν αὕτη ἐστὶν ἡ θρεπτικὴ ψυχὴ, αὕτη ἐστὶ καὶ ἡ γεννῶσα· καὶ τοῦτ' ἐστὶν ἡ φύσις ἡ ἑκάστου, ἐνυπάρχουσα καὶ ἐν φυτοῖς καὶ ἐν ζῴοις πᾶσιν.*

[2] *De An.* ii. 2, 413, b, 1: *τὸ μὲν οὖν ζῆν διὰ τὴν ἀρχὴν ταύτην ὑπάρχει τοῖς ζῶσι, τὸ δὲ ζῷον διὰ τὴν αἴσθησιν πρώτως· καὶ γὰρ τὰ μὴ κινούμενα μηδ' ἀλλάττοντα τόπον ἔχοντα δ' αἴσθησιν ζῷα λέγομεν καὶ οὐ ζῆν μόνον.* *De Sensu*, c. 1, 436, b, 10; *De Juvent.* c. 1, 467, b, 18, 27; *Part. An.* ii. 10, 655, a, 32, 656, b, 3; iv. 5, 681, a, 12; *Ingr. An.* c. 4, 705, a, 26 sqq. b, 8; *Gen. An.* i. 23, 731, a, 30; ii. 1, 732, a, 11. Most of these passages expressly notice the distinction between the *ζῶν* and the *ζῷον*.

the appetite for food appears first.[1] One division of living creatures combines with sensation the power of locomotion, which also belongs to the bestial soul.[2] Lastly, besides nutritive and sensitive life, man possesses Reason, the third and highest faculty of the soul.[3] The soul exists in no other form than those which we have just described.[4] These themselves, however, are so related to each other that the higher cannot exist without the lower.[5] Animal life exhibits a developing scale, in which each successive step includes all that went before. Plato's doctrine of the parts of the soul is thus applied to all animate existence, without violence to the general conception of its originator, though with important modifications of detail,[1] and we are enabled to embrace all natural species from the lowest to the highest in one comprehensive view as concentrated and progressive manifestations of the same life.

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[1] *De An.* ii. 2, 413, b, 4 sqq. 21 sqq. c. 3, 414, b, 1–16, 415, a, 3 sqq. iii. 12, 434, b, 11 sqq. c 13, 435, b, 17 sqq.; *De Sensu*, 1, 436, b, 10–18; *Part. An.* ii. 17, 661, a, 6; *H. An.* i. 3, 489, a, 17; *De Somno*, 1, 454, b, 29, c. 2 *init.* In these passages Aristotle sometimes mentions ἁφὴ alone, sometimes ἁφὴ καὶ γεῦσις, as the property of all animals, but the apparent inconsistency is explained by the fact that Aristotle regarded the sense taste as a form of touch; *De Sensu*, 2, 438, b, 30. *De An.* ii. 9, 421, a, 19; ii. 10 *init.* iii. 12, 434, b, 18.

[2] *De An.* ii. 3, 414, b, 16.

[3] *Ibid.* ii. 3, 414, b, 18 (cf. iii. 3, 427, b, 6; *Gen. An.* i. 23, 731, a, 30 sqq.): ἑτέροις δὲ [τῶν ζῴων ὑπάρχει] καὶ τὸ διανοητικόν τε καὶ νοῦς, οἷον ἀνθρώποις καὶ εἴ τι τοιοῦτον ἕτερόν ἐστιν ἢ καὶ τιμιώτερον. On the latter part of this observation see the discussion upon the different kinds of living beings *infra.*

[4] *De An.* ii. 3, 414, b, 19: just as there is no figure which is not either triangular, quadrangular, or with some other number of angles, so there is no soul which is not one or other of the ψυχαὶ mentioned.

[5] *Ibid.* 414, b, 28: παραπλησίως δ' ἔχει τῷ περὶ τῶν σχημάτων καὶ τὰ κατὰ ψυχήν· ἀεὶ γὰρ ἐν τῷ ἐφεξῆς ὑπάρχει δυνάμει τὸ πρότερον ἐπί τε τῶν σχημάτων καὶ ἐπὶ τῶν ἐμψύχων, οἷον ἐν τετραγώνῳ μὲν τρίγωνον ἐν αἰσθητικῷ δὲ τὸ θρεπτικόν . . . ἄνευ μὲν γὰρ τοῦ θρεπτικοῦ τὸ αἰσθητικὸν οὐκ ἔστιν· τοῦ δ' αἰσθητικοῦ χωρίζεται τὸ θρεπτικὸν ἐν τοῖς φυτοῖς. πάλιν δ' ἄνευ μὲν τοῦ ἁπτικοῦ τῶν ἄλλων αἰσθήσεων οὐδεμία ὑπάρχει, ἁφὴ δ' ἄνευ τῶν ἄλλων ὑπάρχει . . . καὶ τῶν αἰσθητικῶν δὲ τὰ μὲν ἔχει τὸ κατὰ τόπον κινητικὸν, τὰ δ' οὐκ ἔχει. τελευταῖον δὲ καὶ ἐλάχιστα λογισμὸν καὶ διάνοιαν· οἷς μὲν γὰρ ὑπάρχει λογισμὸς τῶν φθαρτῶν [to the ζῷα ἄφθαρτα. *i.e.* the stars, a pure νοῦς belongs], τούτοις καὶ τὰ λοιπὰ πάντα, οἷς δ' ἐκείνων ἕκαστον, οὐ πᾶσι λογισμὸς. ἀλλὰ τοῖς μὲν οὐδὲ φαντασία, τὰ δὲ ταύτῃ μόνῃ ζῶσιν. περὶ δὲ τοῦ θεωρητικοῦ νοῦ ἕτερος λόγος (on this see *infra*). *Ibid.* c. 2, 413, a, 31, with regard to the θρεπτικόν: χωρίζεσθαι δὲ τοῦτο μὲν τῶν ἄλλων δυνατὸν, τὰ δ' ἄλλα τούτου ἀδύνατον ἐν τοῖς θνητοῖς. Cf. i. 5 *fin.* *De Somno*, 1, 454, a, 11. *De Juvent.* 1, 467, b, 18 sqq.

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[1] Aristotle objects, indeed (*De An.* iii. 9, 10, 432, a, 22 sqq. 433, a, 31 sqq.), to Plato's threefold division, on the ground that if we make the functions and faculties of the soul our principle of division we have far more than three parts, for the difference between the θρεπτικὸν, αἰσθητικὸν, φανταστικὸν, νοητικὸν, βουλευτικὸν, ὀρεκτικὸν is wider than between the ἐπιθυμητικὸν and θυμικὸν, and asks, *De An.* i. 5, 411, b, 5, in view of it: τί οὖν ποτε συνέχει τὴν ψυχὴν εἰ μεριστὴ πέφυκεν; it cannot be the body, for it is rather the soul which holds the body together; if, on the other hand, it be said that it is an incorporeal force, then this is the proper soul. But the question immediately recurs, is this simple or manifold? If the former, why cannot the soul itself be so just as well? If the latter, then for the parts of the συνέχον another συνέχον must be sought, and so on *ad infinitum*. We should thus finally be forced to suppose that each part of the soul resides in a particular part of the body, which is obviously not the case either with respect to the reason, which has no bodily organ corresponding to it at all, nor in respect of the lower principle of life, which, in the case of those animals and plants which survive being cut in pieces, lives on in each of the parts. Nevertheless, Aristotle himself speaks of parts of the soul (see p. 21, n. 1, *supra*; *De Vita*, i. 467, b, 16), and although he tries more fully to preserve the unity of its life amid the multiplicity of parts, he cannot be said to have been any more successful than Plato in this endeavour, nor does νοῦς bear any closer relation in his theory to the lower elements of the soul than does the immortal part in Plato's. His departure from Plato, accordingly, does not seem to be so important in principle. He differs from him partly in his account of different forms of animal life, but Plato, no less than he, assigns the lowest of the three parts into which he divides the soul to plants, the middle one to beasts, and holds that the higher part presupposes the lower but not *vice versa*; see *Div.* i. p. 714. The chief difference between the philosophers is in their respective starting points: while Plato begins his investigation into the nature and parts of the soul from the ethical side, Aristotle approaches it from the side of natural science. On the other hand, STRÜMPELL (*Gesch. d. theor. Phil.* 324 sqq.), as BRANDIS has pointed out, ii. b, 1168 sq., goes too far in saying that Aristotle attributes to one and the same being not only different

This progressive development of animal life corresponds to the actual fact, which Aristotle had no doubt observed, and which had led him in the first instance to his theory, that all organic nature exhibits a steady progress from more imperfect and defective productions to richer and fuller forms of life. ‘Nature,’ he says, ‘makes so gradual a transition from the inanimate to the animate kingdom, that the boundary lines which separate them and the position of the intermediate are rendered indistinct and doubtful. Next to the inanimate kingdom comes that of Plants; and here we not only distinguish greater and less degrees of vitality subsisting among individuals, but the whole tribe seems animate when compared with inorganic substances, inanimate when compared with animals. Again, the transition from plants to animals is so gradual that many marine creatures leave us in doubt whether they are animals or vegetables, since they

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faculties or parts of the soul but different souls, to man four, to beasts three (counting the sensitive and the motive principles as two). Aristotle speaks, indeed, of a ψυχὴ θρεπτικὴ, αἰσθητικὴ, λογικὴ. and of different ψυχαὶ (see *e.g.* preceding page; *De Vita*, 3, 469, a, 24), but he does not mean that several souls exist together in an individual as so many separate beings; he even defines the relation of these so-called ψυχαὶ to one another in the distinctest manner as one of comprehension, the nutritive soul being contained in the sensitive, and the sensitive in the rational, just as the triangle is contained in the quadrangle (see preceding note), so that an animal, for instance, can no more be said to contain two souls than a quadrangle can be said to contain two kinds of figures. If he fails, as a matter of fact, perfectly to preserve the unity of the soul throughout (see end of Ch. XII.), we are not on this account justified in denying that he attempted to do so.

adhere to the ground, and cannot live when separated from it. Indeed, the whole tribe of *Ostreaceæ*, when compared with locomotive animals, resemble vegetables.' The same may be said about sensation, physical structure, mode of life, propagation, the rearing of their young, &c.: in all of these respects we notice a gradual progression of development.[1] The continuity of this order brings into play the law of Analogy, the presence of which Aristotle takes some trouble to demonstrate in the sphere of organic structures and their vital functions. Analogy, as we have shown before,[2] is the bond which unites different genera; in organic nature, as elsewhere, it transcends generic differences, and where no real similarity of kind is possible, produces resemblance.[3] This analogy may be observed in the most different quarters. In place of blood, bloodless animals have certain humours which correspond to it;[1] and this is also the case with flesh.[2] Molluscs, being without fat, are provided with an analogous substance.[3] Cartilage and gristle correspond to bones in snakes and fish, and in the lower animals their place is supplied by shells, &c., which serve the same purpose of supporting the body.[4] The hair of quadrupeds answers to the feathers of birds, the scales of fishes, and the mail of oviparous land animals[5]—the teeth of beasts to the bills of birds.[6] Instead of a heart, bloodless animals have a similar central organ,[7] and instead of a brain, something like one.[8] Gills take the place of lungs in fishes, and they inhale water instead of air.[9] Roots perform the same office for vegetables as heads, or rather mouths, for animals, and

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[1] *Hist. An.* viii. 1, 588, b, 4 sqq. where detailed proof is given; *Part. An.* iv. 5, 681, a, 12, where, in speaking of zoophytes and the differences which are to be observed amongst them, he remarks: ἡ γὰρ φύσις μεταβαίνει συνεχῶς ἀπὸ τῶν ἀψύχων εἰς τὰ ζῷα διὰ τῶν ζώντων μὲν οὐκ ὄντων δὲ ζῴων οὕτως ὥστε δοκεῖν πάμπαν μικρὸν διαφέρειν θατέρου θάτερον τῷ σύνεγγυς ἀλλήλοις.

[2] I. 272, n. 2, *supra*. With what follows cf. MEYER, *Arist. Thierk.* 334 sqq. 103 sq.

[3] *Part. An.* i. 4, 644, a, 11. Why are not water and winged animals included under one name? ἔστι γὰρ ἔνια πάθη κοινὰ καὶ τούτοις καὶ τοῖς ἄλλοις ζῴοις ἅπασιν. ἀλλ' ὅμως ὀρθῶς διώρισται τοῦτον τὸν πρόπον. ὅσα μὲν γὰρ διαφέρει τῶν γενῶν καθ' ὑπεροχὴν καὶ τὸ μᾶλλον καὶ τὸ ἧττον, ταῦτα ὑπέζευκται ἑνὶ γένει, ὅσα δ' ἔχει τὸ ἀνάλογον χωρίς. Two kinds of birds differ from one another by the size, for instance, of their wings; birds and fish, on the other hand, τῷ ἀνάλογον· ὃ γὰρ ἐκείνῳ πτερὸν, θατέρῳ λεπίς. Analogies of this kind are found in almost all animals: τὰ γὰρ πολλὰ ζῷα ἀνάλογον ταὐτὸ πέπονθεν. Similarly in the following passage, 644, b, 7 sqq. a contrast is drawn between differences which exist within the same genus, *e.g.* between large and small, soft and hard, smooth and rough animals, and those which permit us to trace only general analogies. To the same effect, c. 5, 645, b, 4: πολλὰ κοινὰ πολλοῖς ὑπάρχει τῶν ζῴων, τὰ μὲν ἁπλῶς, οἷον πόδες πτερὰ λεπίδες, καὶ πάθη δὴ τὸν αὐτὸν τρόπον τούτοις, τὰ δ' ἀνάλογον. λέγω δ' ἀνάλογον, ὅτι τοῖς μὲν ὑπάρχει πλεύμων, τοῖς δὲ πλεύμων μὲν οὔ, ὃ δὲ τοῖς ἔχουσι πλεύ-

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μονα, ἐκείνοις ἕτερον ἀντὶ τούτου· καὶ τοῖς μὲν αἷμα, τοῖς δὲ τὸ ἀνάλογον τὴν αὐτὴν ἔχον δύναμιν ἥνπερ τοῖς ἐναίμοις τὸ αἷμα. *Ibid.* 20 sqq.; *Hist. An.* i. 1, 486, b, 17 sqq., 487, a, 9, c. 7, 491, a 14 sqq.; ii. 1, 497, b, 9; viii. 1 (see *infra*).

[1] *Hist. An.* i. 4, 489, a, 21; *Part. An.* i. 5, 645, b, 8, ii. 3, 650, a, 34, iii. 5, 668, a 4, 25, *Gen. An.* ii. 4, 740, a, 21. *De Somno*, c. 3, 456, a, 35, and other passages.

[2] *Part. An.* ii. 8 *init.* iii. 5, 668, a, 25, ii. 1, 647, a, 19; *Hist. An.* i. 3, 4, 489, a, 18, 23; *De An.* ii. 11, 422, b, 21, 423, a, 14.

[3] *Gen. An.* i. 19, 727, b, 3; *Part.* ii. 3, 650, a, 34.

[4] *Part.* ii. 8, 653, b, 33–*fin.* c. 9, 655, a, 17 sqq. c. 6, 652, a, 2; *Hist.* iii. 7, 516, b, 12 sqq. c. 8, 517, a, 1, i. 1, 486, b, 19.

[5] *Part.* iv. 11, 691, a, 15, i. 4, 644, a, 21. *Hist.* iii. 10 *init.* i. 1, 486, b, 21.

[6] *Part.* iv. 12, 692, b, 15.

[7] *Part.* ii. 1, 647, a, 30, iv. 5, 678, b, 1, 681, b, 14, 28, a, 34; *Gen. An.* ii. 1, 735, a, 23 sqq. c. 4, 738, b, 16. c. 5, 741, b, 15. *De Respir.* c. 17, 478, b, 31 sqq. *De Motu An.* c. 10, 703, a, 14. On the parts which Aristotle regarded as analogous to the heart see MEYER, p. 429.

[8] *Part.* ii. 7, 652, b, 23, 653, a, 11; *De Somno*, 3, 457, b, 29.

[9] *Part.* i. 5, 645, b, 6, iii. 6 *init.* iv. 1, 676, a, 27; *Hist. An.* viii. 2, 589, b, 18, ii. 13, 504, b, 28; *De Resp.* c. 10 sq. 475, b, 15, 476, a, 1, 22.

take up food into their systems.[1] Some animals which have no tongues are provided with an analogous organ.[2] The arms of men, the fore feet of quadrupeds, the wings of birds, the claws of crabs, are all analogous,[3] while the elephant has a trunk instead of hands.[4] Oviparous animals are born from eggs; correspondingly, the embryo of mammals is surrounded with a skin like that of an egg, and in the chrysalis insects assume an oval form. Reversely, the earliest germs of higher animal life corresponds to the worms from which insects are bred.[5] The habits, occupations, tempers, and reason of animals can be compared with those of men; while the human soul in childhood can scarcely be distinguished from that of beasts.[6] Thus does one inner bond of union permeate all departments of organic nature—one life unfolds itself from the same fundamental forms in continually ascending degrees of perfection. And as organic nature is the sphere of contrivance and design, it is itself in turn the object which all the inorganic universe must serve. The elements exist for the sake of homogeneous substance, and this for the sake of organic structures. Here, therefore, the order of existence is reversed: that which is last in origin is first in essence and value.[1] Nature, after displaying a continual decrease of perfection from the highest sphere of heaven to earth, there reaches her turning point, and the descending scale of being begins to reascend.[2] The elements by their mixture prepare the conditions necessary for the development of living creatures, and we see Life expanding itself from its first weak germs to its highest manifestation in humanity.[3]

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[1] *De An.* ii. 4, 416, a, 4: ὡς ἡ κεφαλὴ τῶν ζῴων, οὕτως αἱ ῥίζαι τῶν φυτῶν, εἰ χρὴ τὰ ὄργανα λέγειν ταὐτὰ καὶ ἕτερα τοῖς ἔργοις. *De Juvent.* c. 1, 468, a, 9; *Ingr. An.* c. 4, 708, a, 6.

[2] *Part.* iv. 5, 678, b, 6–10.

[3] *Part.* iv. 12, 693, a, 26, b, 10, c. 11, 691, b, 17; *Hist.* i. 1. 486, b, 19, c. 4, 489, a, 28, ii. 1, 497, b, 18.

[4] *Part.* iv. 12, 692, b, 15.

[5] *Hist.* vii. 7, 586, a, 19: *Gen. An.* iii. 9. See i. 467, n. 1, *supra.*

[6] *Hist. An.* viii. 1, 588, a, 18: ἔνεστι γὰρ ἐν τοῖς πλείστοις καὶ τῶν ἄλλων ζῴων ἴχνη τῶν περὶ τὴν ψυχὴν τρόπων, ἅπερ ἐπὶ τῶν ἀνθρώπων ἔχει φανερωτέρας τὰς διαφοράς. After illustrating this with examples he proceeds: τὰ μὲν γὰρ τῷ μᾶλλον καὶ ἧττον διαφέρει πρὸς τὸν ἄνθρωπον . . . τὰ δὲ τῷ ἀνάλογον διαφέρει· ὡς γὰρ ἐν ἀνθρώπῳ τέχνη καὶ σοφία καὶ σύνεσις, οὕτως ἐνίοις τῶν ζῴων ἐστί τις ἑτέρα τοιαύτη φυσικὴ δύναμις. φανερώτατον δ' ἐστὶ τὸ τοιοῦτον ἐπὶ τὴν τῶν παίδων ἡλικίαν βλέψασιν· ἐν τούτοις γὰρ τῶν μὲν ὕστερον ἕξεων ἐσομένων ἔστιν ἰδεῖν οἷον ἴχνη καὶ σπέρματα, διαφέρει δ' οὐθὲν ὡς εἰπεῖν ἡ ψυχὴ τῆς τῶν θηρίων ψυχῆς κατὰ τὸν χρόνον τοῦτον, ὥστ' οὐδὲν ἄλογον, εἰ τὰ μὲν ταὐτὰ τὰ δὲ παραπλήσια τὰ δ' ἀνάλογον ὑπάρχει τοῖς ἄλλοις ζῴοις.

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[1] *Part. An.* ii. 1, 646, a, 12: τριῶν δ' οὐσῶν τῶν συνθέσεων [on which see i. 517, n. 6, *sup.*] πρώτην μὲν ἄν τις θείη τὴν ἐκ τῶν καλουμένων ὑπό τινων στοιχείων . . . . δευτέρα δὲ σύστασις ἐκ τῶν πρώτων ἡ τῶν ὁμοιομερῶν φύσις ἐν τοῖς ζῴοις ἐστὶν, οἷον ὀστοῦ καὶ σαρκὸς καὶ τῶν ἄλλων τῶν τοιούτων. τρίτη δὲ καὶ τελευταία τὸν ἀριθμὸν ἡ τῶν ἀνομοιομερῶν, οἷον προσώπου καὶ χειρὸς καὶ τῶν τοιούτων μορίων. ἐπεὶ δ' ἐναντίως ἐπὶ τῆς γενέσεως ἔχει καὶ τῆς οὐσίας· τὰ γὰρ ὕστερα τῇ γενέσει πρότερα τὴν φύσιν ἐστὶ καὶ πρῶτον τὸ τῇ γενέσει τελευταῖον, for the house does not exist for the sake of the stones and the bricks, but these for the sake of the house, and generally the material for the sake of the form and the final product: τῷ μὲν οὖν χρόνῳ προτέραν τὴν ὕλην ἀναγκαῖον εἶναι καὶ τὴν γένεσιν, τῷ λόγῳ δὲ τὴν οὐσίαν καὶ τὴν ἑκάστου μορφήν. . . . ὥστε τὴν μὲν τῶν στοιχείων ὕλην ἀναγκαῖον εἶναι τῶν ὁμοιομερῶν ἕνεκεν, ὕστερα γὰρ ἐκείνων ταῦτα τῇ γενέσει, τούτων δὲ τὰ ἀνομοιομερῆ [*i.e.* organic nature]. ταῦτα γὰρ ἤδη τὸ τέλος ἔχει καὶ τὸ πέρας . . . ἐξ ἀμφοτέρων μὲν οὖν τὰ ζῷα συνέστηκε τῶν μορίων τούτων, ἀλλὰ τὰ ὁμοιομερῆ τῶν ἀνομοιομερῶν ἕνεκέν ἐστιν· ἐκείνων γὰρ ἔργα καὶ πράξεις εἰσὶν, οἷον ὀφθαλμοῦ, &c.

[2] Cf. what is said in *Gen. An.* ii. 1, 731, b, 24: ἐπεὶ γάρ ἐστι τὰ μὲν ἀΐδια καὶ θεῖα τῶν ὄντων τὰ δ' ἐνδεχόμενα καὶ εἶναι καὶ μὴ εἶναι, τὸ δὲ καλὸν καὶ τὸ θεῖον αἴτιον ἀεὶ κατὰ τὴν αὑτοῦ φύσιν τοῦ βελτίονος ἐν τοῖς ἐνδεχομένοις, τὸ δὲ μὴ ἀΐδιον ἐνδεχόμενόν ἐστι καὶ εἶναι καὶ μεταλαμβάνειν καὶ τοῦ χείρονος καὶ τοῦ βελτίονος, βέλτιον δὲ ψυχὴ μὲν σώματος, τὸ δ' ἔμψυχον τοῦ ἀψύχου διὰ τὴν ψυχὴν, καὶ τὸ εἶναι τοῦ μὴ εἶναι καὶ τὸ ζῆν τοῦ μὴ ζῆν, διὰ ταύτας τὰς αἰτίας γένεσις ζῴων ἐστίν.

[3] That Aristotle conceives of such a process of development from lower to higher forms, and of man as the highest step in the scale of evolution, by refer-

Aristotle finds the first indications of this Life in inorganic nature. Movement in general may be re-

ence to which we may test the degree of perfection attained by lower forms of being, is obvious from the passages referred to, pp. 21 sq., 25 sq., and i. 465 sq., *supra*, as well as from those which immediately follow. Cf. further *Part. An.* ii. 10, 655, b, 37 sqq., *Gen. An.* i. 23, 731, a, 24. In the former of these passages Aristotle says: plants have few and simple organs, τὰ δὲ πρὸς τῷ ζῆν αἴσθησιν ἔχοντα πολυμορφοτέραν ἔχει τὴν ἰδέαν, καὶ τούτων ἕτερα πρὸ ἑτέρων μᾶλλον, καὶ πολυχουστέραν, ὅσων μὴ μόνον τού ζῆν ἀλλὰ καὶ τοῦ εὖ ζῆν ἡ φύσις μετείληφεν. τοιοῦτο δ' ἐστὶ τὸ τῶν ἀνθρώπων γένος· ἢ γὰρ μόνον μετέχει τοῦ θείου τῶν ἡμῖν γνωρίμων ζῴων, ἢ μάλιστα πάντων. In the latter: τῆς μὲν γὰρ τῶν φυτῶν οὐσίας οὐθέν ἐστιν ἄλλο ἔργον οὐδὲ πρᾶξις οὐδεμία πλὴν ἡ τοῦ σπέρματος γένεσις . . . τοῦ δὲ ζῴου οὐ μόνον τὸ γεννῆσαι ἔργον (τοῦτο μὲν γὰρ κοινὸν τῶν ζώντων πάντων), ἀλλὰ καὶ γνώσεώς τινος πάντα μετέχουσι, τὰ μὲν πλείονος, τὰ δ' ἐλάττονος, τὰ δὲ πάμπαν μικρᾶς. αἴσθησιν γὰρ ἔχουσιν, ἡ δ' αἴσθησις γνῶσίς τις. ταύτης δὲ τὸ τίμιον καὶ ἄτιμον πολὺ διαφέρει σκοποῦσι πρὸς φρόνησιν καὶ πρὸς τὸ τῶν ἀψύχων γένος. πρὸς μὲν γὰρ τὸ φρονεῖν ὥσπερ οὐδὲν εἶναι δοκεῖ τὸ κοινωνεῖν ἁφῆς καὶ γεύσεως μόνον, πρὸς δὲ ἀναισθησίαν βέλτιστον. It is not inconsistent with this view that, starting from man, Aristotle (*Part. An.* iv. 10, 686, b, 20 sqq.) should attribute to the different animal tribes a continually diminishing degree of perfection as compared with him, and (*Hist. An.* i. 6, 491, a, 19) should begin with man as being best known to us. Nor can we with FRANTZIUS (*Arist. üb. die Theile d. Thiere*, p. 315, 77; contrast MEYER, *Arist. Thierk.* 481 sqq.) conclude from these passages that Aristotle regards nature under the form of a retrogressive rather than a progressive development, and conceives of its history as that of an ideal animal assuming a succession of degenerate shapes as it descends from the human to the vegetable form. For, in the first place, he does not always begin with man, but only when he is treating of the external organs; when, on the other hand, he is dealing with the internal organisation, a field in which more is known of the lower animals than of men, he takes the opposite course (*Hist. An.* i. 16 *init.*, cf. *Part.* ii. 10, 656, a, 8). But, in the second place, it does not at all follow that that which is more known to us must in itself be the first either in point of value or of time, or that because Aristotle, in treating of the forms of organic life, begins with the more perfect and proceeds to the more imperfect, therefore nature follows the same course in producing them. On the contrary, he states as definitely as possible that nature proceeds in the reverse order; see, besides other passages, the preceding note. There is here no question of a metamorphosis such as that described, either retrogressive or progressive. Aristotle does not conceive of an garded as a sort of life. In a certain sense we attribute animation to everything: we talk of the life of the air and the wind, and find analogies to the phenomena of the organic life of animals in the sea.[1] Again, the world has its youth and age like plants and animals, except that they do not succeed each other as conditions of the whole, but are present simultaneously as alternating states of its parts. A well-watered region may dry up and grow old, while an arid tract may spring into fresh life by timely moisture. When streams increase, the land about their mouths is gradually changed to sea; when they dry up, the sea becomes land.[2] When these changes take place slowly, length

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ideal individual either developing or degenerating into various forms. The organic forms do not themselves pass into one another; the transition is effected by nature as she rises to the fuller exercise of her creative power. Cf. p. 25, *supra*.

[1] See i. 459, n. 5, 460, n. 1, *sup.*, and *Gen. An.* iv. 10, 778, a, 2: *βίος γάρ τις καὶ πνεύματός ἐστι καὶ γένεσις καὶ φθίσις.* Upon the sea v. *Meteor.* ii. 2, 355, b, 4 sqq. 356, a, 33 sqq.

[2] Cf. on this the full and remarkable exposition, *Meteor.* i. 14. The same regions, Aristotle there says, are not always wet or dry, but according as rivers arise or disappear, the land retreats before the sea or the sea before the land. This happens, however, *κατὰ τινὰ τάξιν καὶ περίοδον. ἀρχὴ δὲ τούτων καὶ αἴτιον ὅτι καὶ τῆς γῆς τὰ ἐντὸς, ὥσπερ τὰ σώματα τὰ τῶν φυτῶν καὶ ζῴων, ἀκμὴν ἔχει καὶ γῆρας.* In regard to the latter, however, *ἅμα πᾶν ἀκμάζειν καὶ φθίνειν ἀναγκαῖον· τῇ δὲ γῇ τοῦτο γίνεται κατὰ μέρος διὰ ψῦξιν καὶ θερμότητα.* As these increase or diminish, portions of the earth change their character, *ὥστε μέχρι τινὸς ἔνυδρα δύναται διαμένειν, εἶτα ξηραίνεται καὶ γηράσκει πάλιν· ἕτεροι δὲ τόποι βιώσκονται καὶ ἔνυδροι γίγνονται κατὰ μέρος.* Where a region dries up, the rivers decrease and finally disappear, the sea retreats, and land is formed where the sea was before; the opposite happens when the moisture of a district increases. As examples of the former process, Aristotle in the following passage (351, b, 28 sqq., 352, b, 19 sqq.) names Egypt, which is unmistakably a *πρόσχωσις τοῦ Νείλου*, an *ἔργον τοῦ ποταμοῦ* (*δῶρον τοῦ ποταμοῦ*, HEROD. ii. 5), and the region surrounding the oracle of Ammon, which, like Egypt, lies below the level of the sea and must therefore once have been the sea bottom; Argolis and the neighbourhood of My-

of time and the gradual character of the transformation cause the memory of them to be usually forgotten;[1] when they happen suddenly they belong to that class of devastating inundations[2] to which Aristotle, following Plato,[3] attributed those relapses into primitive barbarism which, coeternal though the human race is assumed to be

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cenæ in Greece; the Bosphorus, the shore of which is continually changing. Some, he says (352, a, 17 sqq.; according to ii. 3, 356, b, 9 sqq., he is thinking here of Democritus, but the same view is ascribed to Anaximander and Diogenes; cf. ZELLER, *Ph. d. Gr.* i. 205, 2, 799, 4), attribute these changes to a change in the world as a whole, *ὡς γινομένου τοῦ οὐρανοῦ*, holding that the collective mass of the sea is diminished by gradual evaporation (contrast *Meteor.* ii. 3). But if in many places the sea changes into land and contrariwise land into sea, we cannot explain this upon the ground of a *γένεσις τοῦ κόσμου· γελοῖον γὰρ διὰ μικρὰς καὶ ἀκαριαίας μεταβολὰς κινεῖν τὸ πᾶν, ὁ δὲ τῆς γῆς ὄγκος καὶ τὸ μέγεθος οὐθέν ἐστι δήπου πρὸς τὸν ὅλον οὐρανόν. ἀλλὰ πάντων τούτων αἴτιον ὑποληπτέον ὅτι γίγνεται διὰ χρόνων εἱμαρμένων, οἷον ἐν ταῖς κατ' ἐνιαυτὸν ὥραις χειμὼν, οὕτω περιόδου τινὸς μεγάλης μέγας χειμὼν καὶ ὑπερβολὴ ὄμβρων. αὕτη δ' οὐκ ἀεὶ κατὰ τοὺς αὐτοὺς τόπους.* Deucalion's flood was chiefly confined to ancient Hellas or the country watered by the Achelous. Cf. 352, b, 16: *ἐπεὶ δ' ἀνάγκη τοῦ ὅλου* [the whole globe] *γίγνεσθαι μέν τινα μεταβολὴν, μὴ μέντοι γένεσιν καὶ φθορὰν, εἴπερ μένει* [*μενεῖ*] *τὸ πᾶν, ἀνάγκη . . . μὴ τοὺς αὐτοὺς ἀεὶ τόπους ὑγρούς τ' εἶναι θαλάττῃ καὶ ποταμοῖς καὶ ξηρούς.* The Tanais, consequently, and the Nile will one day cease to flow, and the Palus Mæotis will be dried up: *τὸ γὰρ ἔργον αὐτῶν ἔχει πέρας ὁ δὲ χρόνος οὐκ ἔχει.*

[1] *Ibid.* 351, b, 8 sqq, which also refers to Egypt.

[2] The other possibility, of a sudden destroying heat, is even more completely neglected by Aristotle than by Plato.

[3] Plato introduces the story of the Atlantides in the *Timæus* with the remark that devastating tempests, at one time of fire, as in the time of Phaëthon, at another of flood, overtake mankind at intervals. When cities, with all their attendant civilisation, become overwhelmed in the latter, the survivors, who are for the most part semi-barbarous mountaineers, must begin again from the beginning. Hence we have a youthful Hellenic culture side by side with an effete Egyptian civilisation. The same conception recurs in the account of the gradual rise of civilised states out of primitive barbarism, in the *Laws*, iii. 676, B sqq.—the question whether the human race has existed from all eternity or only for an indefinitely long time (vi. 781, E) being left undecided.

with the world,[1] yet from time to time befall it in the history of its civilisation.[2] Life nevertheless in the strict sense exists only, as Aristotle emphatically declares, in beings which are moved by their own soul, *i.e.* in Plants and Animals.[3]

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[1] Aristotle does not, indeed, expressly say that this is so in any extant passage of his writings; it follows, however, from his whole view of the world that he could not have assigned a beginning to the human race any more than to the world itself. As man is the end of nature, she must have been imperfect for an infinite period of time, if at any time the human race did not as yet exist. Moreover, Aristotle actually says (cf. i. 475, n. 4, 508, n. 2, *supra*, that in the history of civilisation the same discoveries have been made an infinite number of times, and his pupil, Theophrastus, among other arguments against the eternity of the world controverts that which uses the comparative recentness of these discoveries to prove that mankind came into being within a definite period of time. See Ch. XII. part 3. According to CENSORINUS, 4, 3, Aristotle taught the eternity of the human race in one of his own writings. The question which he discusses *Gen. An.* iii. 11, 762, b, 28 sqq. how we are to conceive of the origin of man and the four-footed tribes (εἴπερ ἐγένοντό ποτε γηγενεῖς, ὥσπερ φασί τινες . . . εἴπερ ἦν τις ἀρχὴ τῆς γενέσεως πᾶσι τοῖς ζῴοις) is suggested hypothetically, and not from the point of view of his own theory. Cf. BERNAYS, *Theophr. v. d. Frömmigk.* 44 sq.

[2] It has already been shown i. 475, n. 4, 508, n. 2, and 256, n. 2, *supra*, and will be still further proved Ch. XII. part 2, that Aristotle regards religious beliefs and proverbial truths as remnants of a civilisation which has been destroyed by devastations of nature. These devastations, however (according to p. 30, n. 2), can only have affected particular parts of the earth, although often so wide that the scanty survivors of the former population were forced to begin again from the very beginning. When, therefore, CENSORINUS, 18, 11, says of the great *annus mundi* (on which see ZELLER, *Ph. d. Gr.* i. 684, n. 4, and 250), 'quem Aristoteles maximum potius quam magnum appellat,' we may not conclude (as BERNAYS, *ibid.* 170, shows) that Aristotle conceived of periodic revolutions in the history of the universe or even of the earth as a whole. He may have employed the expression in discussing the views of others perhaps in the books upon philosophy (on which see p. 56 sq.).

[3] See p. 1, *supra*.

2. *Plants.*

Plants stand lowest in the scale of living creatures.[1] They first display a real soul, inhabiting an organic body, and no mere analogue of a soul. Yet this soul is of the lowest sort, and its functions are confined to nutrition and propagation.[2] Vegetables are not endowed with sensation and locomotion or the faculties of life from which they spring.[3] They have no vital point of unity (no *μεσότης*), as is proved by the fact that they continue to live after being cut in pieces; and owing to this defect they are insensible to the form of that which operates upon them.[4] Hence we may compare them to animals that have coalesced; for though in reality they have but one soul, they combine several potential souls.[5] Again the sexes have not yet attained to separate existence in them: confined to mere vitality and the propagation of their species, they remain in the condition of perpetual union of the sexes.[1] The nature of their body corresponds to this incompleteness in the life of their soul. Its material composition consists principally of earth;[2] its structure is simple, designed for few functions, and therefore provided with few organs;[3] deriving its nourishment from the earth, and being deprived of locomotion, it is rooted to the ground, and the upper part of it, which corresponds to the head of animals, is turned downwards—the better member to the worse place.[4] It is true that in its contrivance we do not altogether fail to trace the designing faculty of nature, but we do so only indistinctly.[5] But, though in comparison with other living creatures plants occupy so low a place, compared with

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[1] On Aristotle's botanical treatise cf. p. 93. All that his extant works contain upon the subject of plants is to be found collected in **Wimmer's** *Phytologiæ Aristot. Fragmenta* (Breslau, 1838).

[2] See p. 1, n. 3, *supra*.

[3] See p. 21, n. 2, *supra*. As plants never awake to sensation, their condition is like an eternal sleep, and they do not, accordingly, participate in the alternations of sleep and waking (*De Somno*, 1, 454, a, 15; *Gen. An.* v. 1, 778, b, 31 sqq.). For the same reason there is no distinction between the front and the back in plants, for this depends upon the position of the different organs of sense. Finally, being without the power of locomotion while they participate in growth, they have no right and left side, but merely an upper and a lower; *Ingr. An.* c. 4, 705, a. 29–b, 21; *Juvent.* c. 1, 467, b, 32; *De Cœlo*, ii. 2, 284, b, 27, 285, a, 16, cf. i. 497, n. 1, *supra*. On Plato's view of plants, which in spite of particular deviations from Aristotle's is yet nearly related to it, see *Ph. d. Gr.* pp. 731, 714, 7.

[4] *De An.* i. 5, 411, b, 19, ii. 2, 413, b, 16, c. 12, 424, a 32; *Long. Vitæ*, c. 6, 467, a, 18; *Juv. et Sen.* c. 2, 468, a, 28. See also foll. n.

[5] *Juv. et Sen.* 2, 468, a, 29 sqq., where, speaking of insects which can live in a divided form, he says: they are plants which live on in slips; they have only one soul ἐνεργείᾳ, but several δυνάμει. ἐοίκασι γὰρ τὰ τοιαῦτα τῶν ζῴων πολλοῖς ζῴοις συμπεφυκόσιν. *Gen. An.* i. 23, 731, a,

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21: *ἀτεχνῶς ἔοικε τὰ ζῷα ὥσπερ φυτὰ εἶναι διαιρετά.* *De An.* ii. 2, 413, b, 18: *ὡς οὔσης τῆς ἐν τούτοις ψυχῆς ἐντελεχείᾳ μὲν μιᾶς ἐν ἑκάστῳ φυτῷ, δυνάμει δὲ πλειόνων.* Cf. *Part. An.* iv. 5, 682, a, 6; *De Resp.* c. 17, 479, a, 1; *Ingr. An.* 7, 707, b, 2.

[1] *Gen. An.* i. 23, 731, a, i. 24, b, 8, c. 20, 728, b, 32 sqq. c. 4, 717, a, 21, ii. 4 *fin.* iv. 1, 763, b, 24, iii. 10, 759, b, 30; *Hist. An.* viii. 1, 588, b, 24, iv. 11, 538, a, 18.

[2] *De Resp.* 13, 14, 477, a, 27, b, 23 sqq.; *Gen. An.* iii. 11, 761, a, 29. That Aristotle held that there were other constituents in plants besides earth is obvious from the passage cited i. 482, n. 3, *supra.* According to *Meteor.* iv. 8, 384, b, 30, plants consist of earth and water, the water serving for their food (*Gen. An.* iii. 2, 753, b, 25; *H. An.* vii. 19, 601, b, 11), for the consumption of which heat is necessary (see p. 12, n. 3, and p. 14, n. 2 *ad fin.*, *supra*).

[3] *De An.* ii. 1, 412, b, 1; *Part. An.* ii. 10, 655, b, 37; *Phys.* viii. 7, 261, a, 15.

[4] *Ingr. An.* c. 4 *init.* c. 5, 706, b, 3 sqq.; *Long. Vitæ*, 6, 467, b, 2; *Juv. et Sen.* c. 1 *fin.*; *Part. An.* iv. 7, 683, b, 18, c. 10, 686, b, 31 sqq. See further p. 27, n. 1, *sup.*

[5] *Phys.* ii. 8, 199, a, 23: *καὶ ἐν τοῖς φυτοῖς φαίνεται τὰ συμφέροντα γινόμενα πρὸς τὸ τέλος, οἷον τὰ φύλλα τῆς τοῦ καρποῦ ἕνεκα σκέπης . . . . τὰ φυτὰ τὰ φύλλα ἕνεκα τῶν καρπῶν* [sc. *ἔχει*] *καὶ τὰς ῥίζας οὐκ ἄνω ἀλλὰ κάτω ἕνεκα τῆς τροφῆς.* b, 9: *καὶ ἐν τοῖς φυτοῖς ἔνεστι τὸ ἕνεκά του, ἧττον δὲ διήρθρωται.*

the inanimate world the operation of the soul in plants, and especially the propagation of the species, must be placed very high.[1] As all terrestrial things imitate by their endless reproduction the eternity of Heaven, so living creatures are enabled by means of procreation to partake, within the limits of their own particular species, of the eternal and the divine.[2] This, then, is the highest aim of vegetable life.[3] A more elevated rank of vitality appears in Animals,[4] to which Aristotle accordingly devoted so large a portion of his scientific activity.[1]

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[1] Cf. preceding note and p. 13 sqq.

[2] *Gen. An.* ii. 1, 731, b, 31: *ἐπεὶ γὰρ ἀδύνατος ἡ φύσις τοῦ τοιούτου γένους ἀΐδιος εἶναι, καθ' ὃν ἐνδέχεται τρόπον, κατὰ τοῦτόν ἐστιν ἀΐδιον τὸ γιγνόμενον. ἀριθμῷ μὲν οὖν ἀδύνατον, ... εἴδει δ' ἐνδέχεται· διὸ γένος ἀεὶ ἀνθρώπων καὶ ζῴων ἐστὶ καὶ φυτῶν.* *Ibid.* 735, a, 16: all animals and plants have *τὸ θρεπτικόν· τοῦτο δ' ἔστι τὸ γεννητικὸν ἑτέρου οἷον αὐτό· τοῦτο γὰρ παντὸς φύσει τελείου ἔργον καὶ ζῴου καὶ φυτοῦ.* *De An.* ii. 4, 415, a, 26: *φυσικώτατον γὰρ τῶν ἔργων τοῖς ζῶσιν, ὅσα τέλεια καὶ μὴ πηρώματα, ἢ τὴν γένεσιν αὐτομάτην ἔχει, τὸ ποιῆσαι ἕτερον οἷον αὐτὸ, ζῷον μὲν ζῷον, φυτὸν δὲ φυτὸν, ἵνα τοῦ ἀεὶ καὶ τοῦ θείου μετέχωσιν ᾗ δύνανται* &c. *Polit.* i. 2, 1252, a, 28. Cf. the passages, *Gen. et Corr.* ii. 10 and 11 (i. 511, n. 3, *sup.*), from which *Œcon.* i. 3, 1343, b, 23 is copied, and on the propositions of Plato which Aristotle here follows, *Ph. d. Gr.* i. 512, 3.

[3] *De An.* ii. 4. See p. 21, n. 1, *supra.*

[4] Among further details of Aristotle's doctrine of plants may be mentioned: (1) his division of the plant into root, stem, branches, and leaves. The root is the nutritive organ, and the leaves are veined in order to diffuse the nutriment which is contained in the sap (*Part. An.* iv. 4, 678, a, 9, iii. 5, 668, a, 22; *Juv. et Sen.* 3, 468, b, 24). Again (*Part. An.* ii. 10 *init.*), he divides the bodies of plants and animals into three chief parts: that by which they take up food into their system (the head), that by which they rid themselves of superfluous matter, and that which lies in the middle between these two. In plants, the root is the head (see p. 27, n. 1, *supra*); as the nutriment they draw from the earth is already digested, they require no store-chamber for useless surplus (on this see also *Gen. An.* ii. 4, 740, a, 25, b, 8); nevertheless, the fruit and the seed which form at the opposite end from the root are secretions (*Part. An.* ii. 3, 10, 650, a, 20, 655, b, 32, iv. 4, 678, a, 11; *H. An.* iv. 6, 531, b, 8, with which *De Sensu*, 5, 445, a, 19, where the elements which plants fail to absorb and leave behind in the soil seem to be regarded as *περιττώματα* of the food of plants, is not inconsis-

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tent).—(2) Earth and water are the food of plants (*Gen. et Corr.* ii. 8, 335, a, 11; *Part. An.* ii. 3, 650, a, 3, and p. 34, n. 2, *supra.* Cf. *H. An.* vii. 19, 601, b, 12; *Gen. An.* iii. 11, 762, b, 12); it is the sweet part of their food that nourishes plants and animals (*De Sensu*, 4, 442, a, 1–12); this they consume by aid of their vital heat (cf. p. 12, n. 3, and p. 14, n. 2, *supra*, and *Part. An.* ii. 3, 650, a, 3 sqq.), which, in its turn, is supplied to them partly from their food, partly from the surrounding atmosphere, albeit plants do not require respiration; if the atmosphere is too cold or too hot the vital heat is destroyed and the plant withers (*De Sensu*, c. 6; cf. *Respir.* 17, 478, b, 31). As to the influence exercised upon the character and colour of plants by the nature of the soil and water, see *Polit.* vii. 16, 1335, b, 18; *Gen. An.* ii. 4, 738, b, 32 sqq. v. 6, 786, a, 2 sqq.; *H. An.* v. 11, 543, b, 23; *De Sensu*, 4, 441, a, 11, 30; cf. *Probl.* 20, 12; *De Color.* c. 5.—(3) The seed and the fruit of plants are made of the surplus portion of their food (*Part. An.* ii. 10, 655, b, 35, c. 7, 638, a, 24; *Gen. An.* iii. 1, 749, b, 27, 750, a, 20, i. 18, 722, a, 11, 723, b, 16, 724, b, 19, c. 20, 728, a, 26, c. 23, 731, a, 2 sqq.; *Meteor.* iv. 3, 380, a, 11); they contain both the germ and the food of the new plant (*De An.* ii. 1, 412, b, 26; *Gen. An.* ii. 4, 740, b, 6, i. 23, 731, a, 7); smaller plants are more fruitful, being able to expend more material upon the formation of seeds: on the other hand, excessive fruitfulness stunts and destroys plants, because it absorbs too much of the nutritive substance (*Gen. An.* i. 8, 718, b, 12, iii. 1, 749, b, 26, 750, a, 20 sqq. iv. 4, 771, b, 13, i. 18, 725, b, 25; cf. *H. An.* v. 14, 546, a, 1—on barren trees, especially the wild fig-tree, see *Gen. An.* i. 18, 726, a, 6, c. 1, 715, b, 21, iii. 5, 755, b, 10; *H. An.* v. 32, 557, b, 25). On the origin of the seed, see the remarks, *Gen. An.* i. 20, 728, b, 32 sqq. c. 18, 722, a, 11, 723, b, 9. On the development of the germ from the seed and on propagation by slips, *Juv. et Sen.* c. 3, 468, b, 18–28 (cf. WIMMER, p. 31; BRANDIS, p. 1240); *Gen. An.* ii. 4 739, b, 34, c. 6, 741, b, 34, iii. 2, 752, a, 21, c. 11, 761, b, 26; *Respir.* c. 17, 478, b, 33. On self-generation in plants and animals, and on parasites, there are remarks in *Gen. An.* i. 1, 715, b, 25, iii. 11, 762, b, 9, 18; *H. An.* v. 1, 539, a, 16.—(4) On the length of life and the decay of plants *vide Meteor.* i. 14, 351, a, 27; *Longit. Vitæ*, c. 4, 5, 466, a, 9, 20 sqq. c. 6; *De Respir.* 17, 478, b, 27; cf. *Gen. An.* iii. 1, 750, a, 20; on the fall of the leaf and evergreens, *Gen. An.* v. 3, 783, b, 10–22.

[1] On the sources from which he received assistance, *vide* the valuable account of BRANDIS, ii. b, 1298–1305. Of his predecessors in this field the most important was undoubtedly Democritus, whom he frequently mentions with the greatest respect. He refers further to certain views of Diogenes of Apollonia, Anaxagoras, Empedocles, Parmenides,

3. *Animals.*

The powers of nutrition and propagation are accompanied in all animals by sensation, the feeling of pleasure and pain, and the appetites: in most of them also by the power of locomotion. Hence the sentient and the motive soul is now added to the vegetable.[1] Even that moral and intellectual life which reaches its full development in man may be dimly traced in the lower animals: they exhibit gentleness and fierceness, fear and courage, cunning and understanding; nor do we fail to perceive an analogue to the scientific faculty of men in the teachableness of certain animals; while conversely children display the same kind of rudi-

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Alcmæon, Herodorus, Leophanes, Syennesis, Polybus, several statements of Ctesias and Herodotus (which, however, he treats with critical distrust), and now and then, rather by way of literary embellishment, to the poets. Notwithstanding all these, he must have mainly relied for his knowledge of animals upon his own observations, supplemented as those were by information received from shepherds, hunters, fishermen, breeders, and veterinary doctors. His theory, with the exception perhaps of a few isolated points, may be regarded as his own original work. 'The setting into place and putting to use of the facts left him by his predecessors,' **Brandis** remarks, 1303, 'as well as the scientific form which he gave to zoology, are in all probability Aristotle's own work.' **Lange**, indeed, judges differently, *Gesch. d. Material.* i. 61: 'The belief that Aristotle was a great discoverer in natural science is still widely diffused. The knowledge, however, that he had many predecessors in this field . . . has necessarily caused this opinion to be much critisised,' &c. Yet when we ask where we hear of these predecessors, **Lange** refers us (pp. 129, 11, 135, 50) merely to a quotation from **Mullach**, *Fr. Phil.* i. 338, who, however, expresses himself much more guardedly: 'haud scio an Stagirites illam qua reliquos philosophos superat eruditionem *aliqua ex parte* Democriti librorum lectioni debuerit.' On the aid which Alexander is said to have lent Aristotle in his zoological investigations see p. 29 sq.

[1] See p. 21, *supra*.

mentary moral and intellectual development which we detect in brutes.[1]

The character and structure of their bodies answer to the higher rank which animals occupy in the scale of animated nature. Their more numerous and various functions require a greater number and complexity of organs. Aristotle discusses all these organs in his treatise on the *Parts of Animals*.[1] First (ii. 2–9) he describes the homogeneous materials of which they consist—blood, fat, marrow, brain, flesh, bones, sinews, veins, skin, &c. The fundamental constituents of these materials are the elements of warmth, cold, dryness, and humidity.[2] Flesh, or that which corresponds to it amongst the lower classes of animals,[3] is the most essential and indispensable portion of the animal economy: for Aristotle, unacquainted as he was with the nerves, believed that flesh was the medium of the most universal of the senses, that of touch, and therefore the most universal organ of animal life.[4] Bones, sinews, and external coverings serve to unite and protect the flesh.[5] The blood[6] furnishes the nourishment of the various solid constituents. The brain serves to cool the blood,[1] and is therefore composed of the cold elements of earth and water;[2] the marrow[3] and other parts[4] are made of surplus blood. Here, therefore, we may notice a graduated scale of means and ends. The homogeneous elements of the body exist for the sake of the organic,[5] but while some of them fulfil their end directly as parts of the organism, a second class serves merely as nutriment to the former, and a third consists of the superfluous remnant of the second,[6] which nevertheless has a use of its own in the economy of Nature and is not lost.[7] Each of these materials is of superior or inferior quality according to its purpose, so that even here different animals and different parts of the same animal do not stand upon the same level.[8] The soul resides primarily

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[1] *H. An.* viii. 1, 588, a, 18: ἔνεστι γὰρ &c. (see p. 27, n. 6, *supra*). καὶ γὰρ ἡμερότης καὶ ἀγριότης καὶ πρᾳότης καὶ χαλεπότης καὶ ἀνδρία καὶ δειλία καὶ φόβοι καὶ θάρρη καὶ θυμοὶ καὶ πανουργίαι καὶ τῆς περὶ τὴν διάνοιαν συνέσεως ἔνεισιν ἐν πολλοῖς αὐτῶν ὁμοιότητες. (For the continuation of this passage see p. 27, n. 6.) *Ibid.* ix. 1 *init.*: τὰ δ' ἤθη τῶν ζῴων ἐστὶ τῶν μὲν ἀμαυροτέρων καὶ βραχυβιωτέρων ἧττον ἡμῖν ἔνδηλα κατὰ τὴν αἴσθησιν, τῶν δὲ μακροβιωτέρων ἐνδηλότερα. φαίνονται γὰρ ἔχοντά τινα δύναμιν περὶ ἕκαστον τῶν τῆς ψυχῆς παθημάτων φυσικὴν, περί τε φρόνησιν καὶ εὐήθειαν καὶ ἀνδρίαν καὶ δειλίαν, περί τε πρᾳότητα καὶ χαλεπότητα καὶ τὰς ἄλλας τὰς τοιαύτας ἕξεις. ἔνια δὲ κοινωνεῖ τινὸς ἅμα καὶ μαθήσεως καὶ διδασκαλίας, τὰ μὲν παρ' ἀλλήλων τὰ δὲ καὶ παρὰ τῶν ἀνθρώπων, ὅσαπερ ἀκοῆς μετέχει, μὴ μόνον ὅσα τῶν ψόφων ἀλλ' ὅσα καὶ τῶν σημείων διαισθάνεται τὰς διαφοράς. (Cf. c. 3 *init.*: τὰ δ' ἤθη τῶν ζῴων . . . διαφέρει κατά τε δειλίαν καὶ πρᾳότητα καὶ ἀνδρίαν καὶ ἡμερότητα καὶ νοῦν τε καὶ ἄνοιαν.) After discussing the difference between the sexes with respect to disposition, Aristotle continues, 608, b, 4: τούτων δ' ἴχνη μὲν τῶν ἠθῶν ἐστὶν ἐν πᾶσιν ὡς εἰπεῖν, μᾶλλον δὲ φανερώτερα ἐν τοῖς ἔχουσι μᾶλλον ἦθος καὶ μάλιστα ἐν ἀνθρώπῳ· τοῦτο γὰρ ἔχει τὴν φύσιν ἀποτετελεσμένην &c. Cf. i. 1, 488, b, 12 sqq.; *Gen. An.* i. 23 (see p. 28, n. 3, *supra*). Upon the docility and sagacity of many animals see also *Metaph.* i. 1, 980, a, 27 sqq.; *Eth.* iv. 7, 1141, a, 26; *Part. An.* ii. 1, 4, 648, a, 5, 650, b, 24. In the ninth book of his *Natural History* Aristotle treats not only of habits of animals in general but more especially of the traces of intelligence which they exhibit. Of all quadrupeds the sheep has the smallest amount of intelligence (c. 3, 610, b, 22); the stag, on the other hand, displays a large amount (c. 5). Bears, dogs, panthers, and many other animals find out the proper remedies against wounds and sickness, and the proper means of assistance against the attacks of other animals (c. 6). With what intelligence again do swallows build their nests, and the pigeon provide for his mate and his young (c. 7); how cunningly partridges manage their love-affairs, and hatch and protect their broods (c. 8); how cleverly the crane directs his flight (c. 10); what design is displayed in the habits of birds in general, in the choice of a habitation, in the building of their nests, in the search for food (see *ibid.* c. 11–36). In like manner Aristotle remarks upon the cunning of many marine animals (c. 37), the industry of spiders (c. 39), of bees, wasps, and the like (c. 40–43), the docility and cleverness of elephants (c. 46), the moral instinct of camels and horses (c. 47), the humane disposition of dolphins (c. 48), &c.; with all which it is only natural that much that is questionable should be mixed up.

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[1] More accurately in the last three books of this treatise: see i. 92, n. 1, and i. 89, n. 2, *supra*, on these and the Ἀνατομαί.

[2] *Part. An.* ii. 2 *init.* – c. 3, 650, a, 2, referring to the different respects in which one thing is said to be warmer than another, and the transition from one state into another.

[3] Cf. p. 26, n. 2, *supra*.

[4] *Part.* ii. 8 *init.*: πρῶτον [σκεπτέον] περὶ σαρκὸς ἐν τοῖς ἔχουσι σάρκας, ἐν δὲ τοῖς ἄλλοις τὸ ἀνάλογον· τοῦτο γὰρ ἀρχὴ καὶ σῶμα καθ' αὑτὸ τῶν ζῴων ἐστίν. δῆλον δὲ κατὰ τὸν λόγον· τὸ γὰρ ζῷον ὁριζόμεθα τῷ ἔχειν αἴσθησιν, ποῶτον δὲ τὴν πρώτην· αὕτη δ' ἐστὶν ἁφή, ταύτης δ' αἰσθητήριον τὸ τοιοῦτον μόριόν ἐστιν. On the importance of flesh for sensation see, further, c. 1, 647, a, 19, c. 3, 650, b, 5, c. 10, 656, b, 34; *H. An.* i. 3, 4, 489, a, 18, 23; but especially *De An.* ii. 11, 422, b, 19, 34 sqq. 423, b, 1 sqq. 29, iii. 2, 426, b, 15. The organ of sensation itself is the heart (see *infra*).

[5] *Part.* ii. 8, 653, b, 30 sqq.

[6] The blood, or that which corresponds to it (see p. 26, n. 1, *sup.*), is most immediately food (τελευταία or ἐσχάτη τροφή) to the animal body (*De Somno*, c. 3, 456, a, 34; *Part.* ii. 3, 650, a, 32 sqq. c. 4, 651, a, 12; *Gen. An.*

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ii. 4, 740, a, 21, and *passim*); on its quality, therefore, much of the life both of soul and body depends; *Part. An. ibid.*, and c. 2, 648, a, 2 sqq. According to the latter passage, thick warm blood is more conducive to strength, thin cool blood to sense perception, and thought. The best mixture is one of warm but thin and pure blood.

[1] *Ibid.* c. 7 (see p. 16, n. 6, *sup.*). Only animals which have blood, therefore, have a brain (*ibid.* 652, b, 23); human beings have a proportionately larger one than beasts, men than women (653, a, 27), because their blood, being warmer, requires more to cool it. Bloodless animals, however, have something analogous to the brain; see p. 26, n. 8, *supra*.

[2] *Ibid.* 652, b, 22.

[3] *Ibid.* c. 6 *fin.*: [ὁ μυελὸς] τῆς αἱματικῆς τροφῆς τῆς εἰς ὀστᾶ καὶ ἄκανθαν μεριζομένης ἐστὶ τὸ ἐμπεριλαμβανόμενον περίττωμα πεφθέν.

[4] Such as the seed, which is afterwards discussed, and the milk (*Gen. An.* iv. 8).

[5] See i. 517, n. 6, ii. p. 3, n. 2, and p. 28, n. 1, *supra*.

[6] *Part.* ii. 2, 647, b, 20 sqq.

[7] See i. 465, n. 2, *supra*.

[8] *Part.* ii. 2, 647, b, 29 (after explaining the three kinds of ὁμοιομερῆ): αὐτῶν δὲ τούτων αἱ διαφοραὶ πρὸς ἄλληλα τοῦ βελτίονος ἕνεκέν εἰσιν, οἷον τῶν τε ἄλλων καὶ αἵματος πρὸς αἷμα· τὸ μὲν γὰρ λεπτότερον τὸ δὲ παχύτερον καὶ τὸ μὲν καθαρώτερόν ἐστι τὸ δὲ θολερώτερον, ἔτι δὲ τὸ μὲν ψυχρότερον τὸ δὲ θερμότερον ἔν τε τοῖς μορίοις τοῦ ἑνὸς ζῴου (τὸ γὰρ ἐν τοῖς ἄνω μέρεσι πρὸς τὰ κάτω μόρια διαφέρει ταύταις ταῖς διαφοραῖς) καὶ ἑτέρῳ πρὸς ἕτερον. Similar differences in flesh are referred to,

in the Pneuma, which is the cause of vital heat, and which in turn has its chief seat in the heart.[1]

If we proceed to consider the organs formed of homogeneous materials, we must notice in the first place that animals possess a point of functional unity, and consequently an organ in which their vitality is centred:[2] in creatures that have blood this organ is the heart, in others something similar;[3] it is only some of the very lowest classes that so closely resemble plants as to possess at least potentially several points of vitality and to continue living after they have been cut in pieces.[4] This central organ is formed at the very beginning of life in every animal, and cannot be destroyed without its dissolution.[5] Its function[6]

Part. iii. 3, 665, a, 1, c. 7, 670, b, 2. *De An.* ii. 9, 421, a, 25: *οἱ μὲν γὰρ σκληρόσαρκοι ἀφυεῖς τὴν διάνοιαν, οἱ δὲ μαλακόσαρκοι εὐφυεῖς.*

[1] Cf. p. 6, n. 2, *supra.*

[2] See p. 33, n. 4, *supra.*

[3] See p. 26, n. 7, *supra*, and *Gen. An.* ii. 4, 738, b, 16: *ἀρχὴ γὰρ τῆς φύσεως ἡ καρδία καὶ τὸ ἀνάλογον, τὸ δὲ κάτω προσθήκη καὶ τούτου χάριν.* *De Vita et M.* c. 2–4; *Part.* iii. 4, 665, b, 9 sqq. c. 5, 667, b, 21. For a more detailed account of the parts which, according to Aristotle, represent the heart, and are always situated in the centre of the body, see *Part.* iv. 5, 681, b, 12–682, b, 8; on their situation see further, *Juv. et Sen.* 2, 468, a, 20.

[4] Aristotle remarks this, *De An.* ii. 2, 413, b, 16 sqq.; *Juv. et Sen.* 2, 468, a, 26 sqq.; *Ingr. An.* 7, 707, a, 27 sqq.; *Part. An.* iii. 5, 667, b, 23, iv. 5, 682, b, 1 sqq. (see p. 33, n. 5, *supra*), of many insects (which have not yet been all identified; cf. MEYER, *Arist. Thierk.* 224).

[5] *Part.* iii. 4, 666, a, 10, 20, 667, a, 32; *De Vita*, 3, 468, b, 28; *Gen. An.* ii. 4, 739, b, 33, 740, a, 24, where the view of Democritus is controverted which represented the outer portions as being formed first, 'as though we were dealing with figures of wood or stone and not with living beings, whose evolution proceeds from within outwards.'

[6] MEYER, *Arist. Thierk.* 425 sqq. The blood is boiled out of the food by means of the heat of the heart (*De Respir.* 20, 480, 2 sqq.); the circulation of the blood, as well as the distinction between veins and arteries (*Part.* iii. 4, 666, a, 6. *De Respir.* 20, 480, a, 10, and the whole description of the system of the veins, *Part.* iii. 5; *Hist. An.* iii. 3), was unknown to Aristotle, who, however, was acquainted with the beating of the heart and

consists partly in preparing the blood, and partly in producing sensation and motion. Next in importance

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the pulse (cf. i. 262, n. 1, *sup.*) and mentions the different quality of the blood (see *infra*, and cf. p. 40, n. 8, *supra*). He also accurately describes many of the veins (*Part.* iii. 5, *Hist. An.* iii. 3, 513, a, 12 sqq. cf. PHILIPPSON, Ὕλη ἀνθρ. p. 28). The veins have their source, not, as Hippocrates and his school held, in the head, but in the heart (*Part.* ii. 9, 654, b, 11, iii. 4, 665, b, 15, 27, c. 5 *init.*; *Hist. An.* iii. 3, 513, a, 21; *Gen. An.* ii. 4, 740, a, 21; *De Somno*, 3, 456, b, 1). The separation between the purer and the thicker blood is effected, at least in the case of all the larger animals, in the heart, the former passing upwards, the latter downwards (*De Somno*, c. 3, 458, a, 13 sqq.; *Part.* iii. 4, 665, b, 27 sqq.; *Hist. An.* iii. 19, 521, a, 9). The native heat of the heart enables the blood, and this again enables the body, to retain its heat (*Part.* iii. 5, 667, b, 26); the heart, *Part.* iii. 7, 670, a, 24, is therefore compared to the Acropolis, as the place in which Nature maintains her sacred fire. The boiling of the blood produces (*v.* MEYER) steam in the heart, causing the latter to heave and thus expanding the chest; into the space, thus left vacant, air rushes and so cools the whole that it again contracts until the steam which is generated in the heart again produces the pulsation which is transmitted through all the veins and is accompanied by respiration (*Part.* ii. 1, 647, a, 24, iii. 2, 665, b; *Hist. An.* i. 16, 495, b, 10; *De Respir.* 20, 479, b, 30, 480, a, 2, 14, c. 21, 480, a, 24, b, 17). As the cause of respiration, the heart is also the cause of motion; *De Somno*, 2, 456, a, 5, 15, cf. *Ingr. An.* c. 6, 707, a, 6 sqq. The sinews, moreover, have their source in the heart, which is itself very sinewy, although they are not wholly dependent upon it (*Hist. An.* iii. 5; *Part.* iii. 4, 666, b, 13). Aristotle, however, does not explain how the limbs are set in motion by the heart (see MEYER, p. 440). The heart is the primary seat of sensation and of the sensitive life: *Part. An.* ii. 1, 647, a, 24 sqq. c. 10, 656, a, 27 sqq. b, 24, iii. 4, 666, a, 11, c. 5, 667, b, 21 sqq., iv. 5 (see p. 41, n. 3, *supra*); *De Somno*, 2, 456, a, 3; *Juv. et Sen.* 3, 469, a, 10 sqq. b, 3. Cf. Ch. X., part 3, *infra*. The blood vessels are the channels by means of which sensations reach the heart (*Part.* iii. 4, 666, a, 16), although the blood itself is without sensation (*ibid.* and *Part.* ii. 3, 650, b, 3, c. 7, 652, b, 5). The sense of touch transmits itself by means of the flesh (see p. 39, n. 4, *supra*), the others through passages (πόροι) which extend from the organs of sense to the heart (*Gen. An.* v. 2, 781, a, 20), and by which we must suppose him to mean the veins, as MEYER, p. 427 sq., and PHILIPPSON, passage referred to above (in treating of the πόροι which lead to the brain: *Hist. An.* i. 16, 495, a, 11, iv. 8, 533, a, 12; *Part. An.* ii. 10, 656, b, 16) show; cf. *Juv. et Sen.* 3, 469, a, 12; *Part.* ii. 10, 656, a, 29; *Gen. An.* ii. 6, 744, a, 1;

to the heart is the brain,[1] the purpose of which, as we already know,[2] is to cool the blood and temper the warmth arising from the heart. Aristotle directly contradicts the notion that it is the seat of sensation.[3] The lungs are also used for cooling the blood, the windpipe[4] supplying them with air.[5] With a view to this purpose, their nature is varied according to the greater or less amount of internal heat an animal possesses. The lungs of mammals are the fullest of blood; those of birds and amphibious beasts, of air.[6] Fishes, which are

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Hist. An. iii. 3, 514, a, 19, i. 11, 492, a, 21. In the case of the senses of smell and hearing, between the objects perceived and the veins that lead to the heart, there is further interposed the *πνεῦμα σύμφυτον*; *Gen. An.* ii. 6, 744, a, 1; *Part.* ii. 16, 659, b, 15. The nerves are unknown to Aristotle; cf. PHILIPPSON, *ibid.* and MEYER, p. 432: if he was led to the theory of the above-mentioned *πόροι* — by which SCHNEIDER (*Arist. Hist. An.* iii. 47) and FRANTZIUS (*Arist. üb. die Theile d. Thiere*, p. 280, 54) understand him to mean nerves—by the actual observation of certain of the nerves, this of itself would be a proof that he did not know them *as* nerves. See also Ch. X. part 3.

[1] *Part.* iii. 11, 673, b, 10.

[2] See p. 40, n. 1, *supra*. The spinal marrow is united to the brain for the purpose of being cooled by it.

[3] *Part.* ii. 10, 656, a, 15 sqq. (where Aristotle has chiefly in view PLATO'S *Timæus*, 75, B sq.); cf. MEYER, p. 431.

[4] See *Part.* iii. 3. *Hist. An.* iv. 9, where the windpipe is fully treated with especial reference to its function as the vocal organ.

[5] For the discussion of this point in detail, v. *Part.* iii. 6, and the treatise *π. Ἀναπνοῆς*, especially c. 7, 474, a, 7 sqq. c. 9 sq. c. 13, c. 15 sq. The veins branch out from the heart to the lungs and serve to carry the air from the latter to the former; *Hist. An.* i. 17, 496, a, 27; MEYER, p. 431 (see *supra* and *Ph. d. Gr.* i. 730, 4). Plato had already assumed that the heart was cooled by the lungs.

[6] *Respir.* 1, 470, b, 12, c. 10, 475, b, 19 sqq. c. 12 *init.*; *Part.* iii. 6, 669, a, 6, 24 sqq. It is interesting to observe how Aristotle's imperfect acquaintance with the facts lead him to false conclusions. His observations had led him to see that there is a connection between respiration and animal heat; but as he had no conception either of the oxidation of the blood or of the nature of combustion generally, or of the circulation of the blood, he held that its heat was merely cooled and not nourished by respiration. In *Respir.* c. 6, 473, as he expressly controverts the view

less in need of cooling organs, are provided with gills in order to expel the water absorbed with their food after it has performed its cooling function.[1] Bloodless animals are without lungs, which, on account of their colder nature, they do not need.[2] The nutritive matter from which the blood is formed in the heart,[3] is prepared by the digestive organs,[4] which are separated from the nobler viscera in the case of all full-blooded animals by the midriff, in order that the seat of the sensitive soul may not be disturbed in its operations by the warm steam rising from the food.[5] The food is

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that the air which is inhaled serves for food to the internal fire.

[1] *Respir.* 10, 476, a, 1 sqq. 22, b, 5, c. 16; *H. An.* ii. 13, 504, b, 28, and other passages; see p. 26, n. 9, *supra.* The earlier view that fish also breathe air, Aristotle expressly controverts, *Respir.* c. 2, 3. A solution of the question was only possible (as Meyer remarks, p. 439) after the discovery of the conversion of gases.

[2] *Part.* iii. 6, 669, a, 1; *Respir.* c. 9 (see p. 7 sq. *supra*), c. 12, 476, b, 30. Aristotle knows, indeed, of the respiratory organs of some bloodless animals, but he assigned to them another function.

[3] In *Gen. et Corr.* ii. 8, 335, a, 9 sqq., *De Sensu*, 5, 445, a, 17, Aristotle remarks generally of plants as well as animals that this material is a mixture of all the elements; see i. 482, n. 3, *sup.* That which properly furnishes nutrition is the sweet part, for this, being lighter, is boiled away by the heat, while that part which is bitter and heavy is left behind; all else serves merely to season its sweetness (*De Sensu*, 4, 442, a, 2 sqq., cf. *Gen. An.* iii. 1, 750, b, 25; *Meteor.* ii. 2, 355, b, 5; *Part.* iv. 1, 676, a, 35). Fat is sweet (*De Sensu*, 4, 442, a, 17, 23; *Long. V.* 5, 467, a, 4); sweet blood is the more wholesome (*Part.* iv. 2, 677, a, 27), and fat is well-boiled, nutritious blood (*Part.* ii. 5, 651, a, 21).

[4] The teeth perform merely a preliminary function (*Part.* ii. 3, 650, a, 8). On the mouth, as the organ for taking up the food into the system, which, however, serves several other purposes as well, see *Part.* ii. 10 *init.* (cf. p. 19, n. 1, *supra*), c. 16, 659, b, 27 sqq., iii. 1; *De Sensu*, 5, 445, a, 23.

[5] *Part.* iii. 10, 672, b, 8–24; cf. *Ph. d. Gr.* i. p. 729. That the vegetable soul (the φύσις) is situated below the midriff, is said also *Gen. An.* ii. 7, 747, a, 20. Cf. p. 41, n. 3, *supra.*

subjected to a preliminary process of preparation in the stomach.[1] and reduced to a fluid state, which admits of its entering the body.[2] It passes by evaporation into the veins that surround the stomach, and thence into the heart. where it is converted into pure blood.[3] Leaving the heart, it is carried to the different parts of the body, according to their several necessities [4] The passage of the blood from the stomach into the veins is effected by the mesentery, the tendrils of which are as it were the roots or suckers by means of which animals absorb their food from the stomach, as plants do from the earth.[5] The fatty covering of the epiploon causes an increase of digestive warmth in the abdomen,[6] while the same function is performed for the blood by the liver and spleen,[7] which also serve as a kind of anchor by which the network of veins is secured.[8] On the other hand, the gall is only useless matter which has been rejected by the blood.[1] The full-blooded animals, which on account of their warm nature need more fluid nourishment, are provided in their bladder and kidneys with special organs for rejecting the surplus matter which thus gains admittance into the body.[2] Corresponding to the mouth, which receives food, and the gullet, which conducts it to the stomach,[3] all animals possess a conduit in their bowels for expelling the useless refuse of their nourishment.[4] But in the case of some animals a portion of the digestive function is performed by the bowels.[5] The narrowness and windings of these passages serve to moderate the appetite, and therefore the most voracious animals are those which have wide and straight canals like fishes;[6] but the real need of nourishment depends upon the amount of

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[1] The nature of which in the different animals is described *Part.* iii. 14, 674, a, 21–675, a, 30; *H. An.* ii. 17, 507, a, 24–509, b, 23, iv. 1, 524, b, 3, c. 3, 527, b. 22, &c.

[2] Cf. *Part.* ii. 2, 647, b, 26.

[3] *Part.* ii. 3, 650, a, 3–32, *De Somno*, 3, 456, b, 2 sqq.

[4] It is pointed out, *Gen. An.* iv. 1, 766, a, 10, ii. 6 (see p. 19, n. 2, *supra*), *Meteor.* ii. 2, 355, b, 9, that each part is formed and nourished out of suitable materials, the nobler parts of better materials, the lower out of inferior; but we are not told how this is effected. From passages such as *Gen. An.* iv. 1, 766, b, 8, ii. 3, 737, a, 18, i. 19, 726, b, 9, cf. ii. 4, 740, b, 12 sqq., we gather merely that Aristotle supposes the blood as the ἐσχάτη τροφὴ to pass spontaneously into those parts for which it is destined.

[5] *Part.* iv. 4, 678, b, 6 sqq. ii. 3, 650, a, 14 sqq. According to these passages the stomach serves the same purpose for animals, as the earth does for plants; it is the place where their food is kept and prepared for use.

[6] *Part.* iv. 3, 677, b, 14, where an attempt is made to explain the formation of the epiploon physically (ἐξ ἀνάγκης).

[7] *Part.* iii. 7, 670, a, 20 sqq.

[8] *Part.* iii. 7, 670, a, 8 sqq. (cf. c. 9, 671, b, 9) where the same remark is made of the kidneys and the intestines generally (similarly Democritus compared the navel of the child in the mother to an anchor, see *Part.* i. 807, 6). It has already been shown (p. 20, n. 1, *supra*) that the spleen

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is not equally a necessity to all animals. Bloodless animals want this intestine as well as fat; *Part.* iv. 5, 678, a, 25 sqq. ii. 5, 651, a, 25. For further description of the form of these organs in different animals, see *Part.* iii. 12, 673, b, 20, 28, c. 4, 666. a, 28, c. 7, 670, b, 10. *De An.* ii. 15, 506, a, 13.

[1] See p. 20, n. 3, *supra.* Since only sweet substances are nutritious, the bitterness of gall shows that it is a περίττωμα, *Part.* iv. 2, 677, a, 24. It is accordingly not found in all animals; *ibid.* 676, b, 25, iii. 12, 673, b, 24; *H. An.* ii. 15, 506, a, 20, 31.

[2] *Part.* iii. 8, 9; *H. An.* ii. 16. Aristotle knew of exceptions to the above rule and found means of explaining them. His treatment of the fat of the kidneys, 672, a, 1 sqq., from the point of view both of physical necessity and of natural design is especially full and interesting.

[3] On the alimentary canal, which, however, is not found in all animals, see *Part.* iii. 14.

[4] *Part.* iii. 14, 674, a, 9 sqq. 675, a, 30, 656, b, 5.

[5] *Ibid.* 675, b, 28.

[6] *Ibid.* 675, b, 22: ὅσα μὲν οὖν εἶναι δεῖ τῶν ζῴων σωφρονέστερα πρὸς τὴν τῆς τροφῆς ποίησιν εὐρυχωρίας μὲν οὐκ ἔχει μεγάλας κατὰ τὴν κάτω κοιλίαν, ἕλικας δ' ἔχει πλείους καὶ οὐκ εὐθυέντερά ἐστιν. ἡ μὲν γὰρ εὐρυχωρία ποιεῖ πλήθους ἐπιθυμίαν, ἡ δ' εὐθύτης ταχυτῆτα ἐπιθυμίας &c. *Ibid.* 675, a, 18; *Gen. An.* i. 4, 717, a, 23 sqq.; Plato, *Tim.* 72, E sq.

warmth or cold in the nature of the animal.[1] Support and protection are supplied to the softer parts by the framework of bones, or what corresponds to it in the lower animals.[2] All the bones of sanguineous animals start from the spine;[3] and here it is certain that Aristotle has the credit of being the first to indicate one of their common properties.[4] The limbs are united to the spine by means of sinews and joints, which connect them all without impeding motion.[5] With reference to motion and the organs of motion in their mechanical aspect, Aristotle has recorded several just observations.[6] In other cases he not unfrequently supports remarks of questionable value by artificial and indemonstrable assumptions.[1] Nor can we pretend that he made the least advance towards a physiological explanation of the circumstances which affect and accompany locomotion.[2]

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[1] *Part.* iv. 5, 682, a, 22: *τὸ γὰρ θερμὸν καὶ δεῖται τροφῆς καὶ πέττει τὴν τροφὴν ταχέως, τὸ δὲ ψυχρὸν ἄτροφον.*

[2] *Part.* ii. 8, 653, b, 33 sqq.; see p. 39, n. 5, *supra*; *ibid.* c. 9, 654, b, 27 sqq. On the parts analogous to the bones, see p. 26, n. 4, *supra.*

[3] *Part.* ii. 9, 654, b, 11: *ἀρχὴ δὲ τῶν μὲν φλεβῶν ἡ καρδία, τῶν δ' ὀστῶν ἡ καλουμένη ῥάχις τοῖς ἔχουσιν ὀστᾶ πᾶσιν, ἀφ' ἧς συνεχὴς ἡ τῶν ἄλλων ὀστῶν ἐστι φύσις.*

[4] *Hist. An.* iii. 7, 516, b, 22: *πάντα δὲ τὰ ζῷα ὅσα ἔναιμά ἐστιν, ἔχει ῥάχιν ἢ ὀστώδη ἢ ἀκανθώδη.*

[5] For the full treatment of this subject see *Part.* ii. 9, 654, b, 16 sqq. On one or two remarkable omissions in Aristotle's Osteology, *e.g.* of all mention of the pelvis and of the parallel between the legs of animals and human beings, see MEYER, p. 441 sq.

[6] *E. g.* in the treatise *π. πορείας ζῴων* the statements: that all that moves requires a fulcrum (c. 3); that two organic parts at least are necessary to produce motion, one to sustain the pressure and one to exercise it (*ibid.* 705, a, 19); that there is always an even number of feet (c. 8, 708, a, 21; *Hist. An.* i. 5, 489, b, 22); that all forward motion in organic beings is produced by bending and stretching (c. 9, c. 10, 709, b, 26; this chapter further contains discussions on the flight of birds and insects, and the importance of the different organs of flight); that in order that he may stand upright man may not have more than two legs, and that the upper parts of his body must be lighter in proportion to the lower than in the case of the lower animals (c. 11 *init.*). The same is true of many of the remarks in c. 12–19 on the bending of the joints and the means of locomotion both in men and in different animals.

One of the most important distinctions between animals and vegetables is the difference in their manner of reproduction.[3] While vegetables have no sex, the separation of the sexes begins with animals, their reunion being only transiently effected for purposes of reproduction. Since animals are not intended for mere life, but also for sensation, it follows that the exercise of their reproductive[1] functions must be confined to certain occasions.[2] Only the ostreaceous tribes and zoophytes[3] are sexless; placed upon the boundary which separates the animal from the vegetable kingdom, they are deprived of the functions which belong to both: they resemble plants in not propagating themselves by copulation, and animals in not being generated from seeds or fruit. They are, in fact, reproduced by a process of spontaneous generation from slime.[4] And the like ambiguity of nature is displayed in their case with regard to locomotion.[5]

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[1] Thus, c. 4 sq. (cf. i. 497, n. 1, *sup.*), he endeavours, not without much subtilty, to establish the position that motion always proceeds from the right, although he obviously derives it, not from scientific observation, but from the dogmatic presupposition (c. 5, 706, b, 11) that the top is superior to the bottom, the front to the back, the right to the left, and that therefore the ἀρχαὶ must have their seat on the upper front and right side. Albeit he remarks himself that we may equally say that these are the superior situations because the ἀρχαὶ have their seat in them. On the latter point cf. *ibid.* 705, a, 29 sqq.; *De Cœlo*, ii. 2, 284, b, 26: ἀρχὰς γὰρ ταύτας λέγω ὅθεν ἄρχονται πρῶτον αἱ κινήσεις τοῖς ἔχουσιν. ἔστι δὲ ἀπὸ μὲν τοῦ ἄνω ἡ αὔξησις, ἀπὸ δὲ τῶν δεξιῶν ἡ κατὰ τόπον, ἀπὸ δὲ τῶν ἔμπροσθεν ἡ κατὰ τὴν αἴσθησιν. He goes on to add, c. 6 sq., an equally artificial proof of the statement (which is made also c. 1, 704, a, 11, c. 10 *init.*; *Hist. An.* i. 5, 490, a, 25 sqq.) that sanguineous animals cannot move on more than four legs (*Hist. An.* he says plainly four). His account moreover, c. 12 sqq., of the walk of animals, as MEYER shows, 441 sq., is not free from error.

[2] We are told, indeed, that all motion proceeds from the heart, but it is not explained how this is possible (see p. 41, n. 6, *supra*). The explanation proposed, π. πνεύματος, c. 8 *init.*, that the vital spirit streams through the sinews and is the moving force, is not Aristotelian.

[3] The work in which Aristotle has treated of this question, π. ζῴων γενέσεως, has received the warmest recognition even from scientific men of the present day. LEWES, who is not certainly in other respects inclined to place an exaggerated estimate upon Aristotle's scientific investigation, agrees with AUBERT and WIMMER (p. v. sq. of their edition) in expressing his admiration of this treatise, which handles some of the deepest problems of biology with a masterly grasp, astonishing at so early a time, and is even less antiquated at the present day than Harvey's celebrated work (*Arist.* § 413).

Passing to the comparison of the sexes, we may remark that the male and female are related to each other as form and matter.[6] The former is the active, the latter is the passive, part; the one bestows the motive and plastic force, the other supplies the material to be moulded;[7]

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[1] The *ἔργον τοῦ ζῶντος*, the *ἔργον κοινὸν τῶν ζώντων πάντων*.

[2] *Gen. An.* i. 23, from which quotation has already been made, p. 29, *supra*.

[3] Besides a few others, to be mentioned hereafter, which must be regarded as exceptions.

[4] *Gen. An.* i. 23, 731, b, 8, c. 1, 715, a, 25, b, 16, ii. 1, 732, a, 13, iii. 11, 761, a, 13–32. Only such relatively simple organisms can be produced in this way, and accordingly if it be true, as some hold, that men and quadrupeds are sprung from the earth, they must have been evolved from worms or eggs which preceded them (*Gen. An.* iii. 11, 762, b, 28 sqq.). Aristotle, however, does not himself share this view, although it is to be found in Theophrastus.

[5] Separation of the sexes is expressly confined to the *ζῷα πορευτικὰ*, and as testaceous animals are described in the passage just referred to as *μεταξὺ ὄντα τῶν ζῴων καὶ τῶν φυτῶν*, and accordingly of neuter gender, it is said of them, *Ingr. An.* 19, 714, b, 13: *τὰ δ' ὀστρακόδερμα κινεῖται μὲν, κινεῖται δὲ παρὰ φύσιν· οὐ γάρ ἐστι κινητικὰ, ἀλλ' ὡς μὲν μόνιμα καὶ προσπεφυκότα κινητικὰ, ὡς δὲ πορευτικὰ μόνιμα.* It is previously said that they move as animals with feet would move if their legs were cut off.

[6] See i. 353, *supra*.

[7] *Gen.* i. 2, 716, a, 4: *τῆς γενέσεως ἀρχὰς ἄν τις οὐχ ἥκιστα θείη τὸ θῆλυ καὶ τὸ ἄρρεν, τὸ μὲν ἄρρεν ὡς τῆς κινήσεως καὶ τῆς*

the one gives the soul, the other the body.[1] Aristotle maintains this opinion so firmly that he denies any participation on the part of the male seed in the material composition of the embryo,[2] declaring that it only communicates the necessary impulse to the substance derived from the female,[3] as is the case generally with form in its relation to matter, active to passive, propelling to propelled. In each of these cases the former does not enter into any material union with the latter principle, but only operates upon it.[4] Just for this reason, according to Aristotle, is the male distinct

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γενέσεως ἔχον τὴν ἀρχὴν, τὸ δὲ θῆλυ ὡς ὕλης. c. 20, 729, a, 9: *τὸ μὲν ἄρρεν παρέχεται τό τε εἶδος καὶ τὴν ἀρχὴν τῆς κινέσεως, τὸ δὲ θῆλυ τὸ σῶμα καὶ τὴν ὕλην.* L. 29: *τὸ ἄρρεν ἐστὶν ὡς κινοῦν, τὸ δὲ θῆλυ, ᾗ θῆλυ, ὡς παθητικόν.* Again, c. 21, 729, b, 12, 730, a, 25, ii. 4, 738, b, 20–36, 740, b, 12–25, and *passim*; cf. also foll. notes.

[1] *Gen. An.* ii. 3 (see *supra*, p. 6, n. 2): *τὸ τῆς γονῆς σῶμα, ἐν ᾧ συναπέρχεται τὸ σπέρμα τὸ τῆς ψυχικῆς ἀρχῆς.* *Ibid.* 737, a, 29 (see p. 52, n. 2, *infra*) c. 4, 738, b, 25: *ἔστι δὲ τὸ μὲν σῶμα ἐκ τοῦ θήλεος, ἡ δὲ ψυχὴ ἐκ τοῦ ἄρρενος.*

[2] *Gen. An.* i. 21, 22: the young is formed in the mother, in whom lies the material on which the plastic force of the father is exercised but into which the male seed does not enter as any part of the embryo, *ὥσπερ οὐδ' ἀπὸ τοῦ τέκτονος πρὸς τὴν τῶν ξύλων ὕλην οὔτ' ἀπέρχεται οὐθὲν, οὔτε μόριον οὐθέν ἐστιν ἐν τῷ γιγνομένῳ τῆς τεκτονικῆς, ἀλλ' ἡ μορφὴ καὶ τὸ εἶδος ἀπ' ἐκείνου ἐγγίνεται διὰ τῆς κινήσεως ἐν τῇ ὕλῃ, καὶ ἡ μὲν ψυχὴ, ἐν ᾗ τὸ εἶδος, καὶ ἡ ἐπιστήμη κινοῦσι τὰς χεῖρας . . . αἱ δὲ χεῖρες καὶ τὰ ὄργανα τὴν ὕλην.*

[3] He compares the seed in this respect, *Gen. An.* i. 20, 729, a, 11, ii. 4, 739, b, 20, with the runnet which causes milk to curdle. *Ibid.* iv. 4, 772, a, 22, however, deprecates too exact an application of this comparison.

[4] *Gen. An.* i. 21, 729, b, 1: does the male seed contribute to the formation of the young *ὡς ἐνυπάρχον καὶ μόριον ὂν εὐθὺς τοῦ γινομένου σώματος, μιγνύμενον τῇ ὕλῃ τῇ παρὰ τοῦ θήλεος, ἢ τὸ μὲν σῶμα οὐθὲν κοινωνεῖ τοῦ σπέρματος, ἡ δ' ἐν αὐτῷ δύναμις καὶ κίνησις;* Aristotle decides for the second of these views; for, on the one hand, *οὐ φαίνεται γιγνόμενον ἓν ἐκ τοῦ παθητικοῦ καὶ τοῦ ποιοῦντος ὡς ἐνυπάρχοντος ἐν τῷ γινομένῳ τοῦ ποιοῦντος, οὐδ' ὅλως δὴ ἐκ τοῦ κινουμένου καὶ κινοῦντος*, and, on the other, it is supported by several other facts which show that generation is possible without material contact between the male seed and the female matter, as in the case of the subsequent fructification of wind-eggs.

from the female, wherever it is possible; for if the form is superior to the matter, the more distinct they are, the better the result must be.[1] Accordingly, he is careful to distinguish between the procreative substance of the male, which is the seed, and that of the female, which he identifies with the catamenial discharge. He holds that they are both, generically, of the same sort and the same origin, being a secretion of nutritive matter, a product of the blood.[2] This fluid, however, is secreted in larger quantities and of a cruder sort with the weaker sex, forming the menses of women or what corresponds to them among other animals; in men, however, it becomes seed.[3] Thus the same substance receives so different an application in the two cases, that where it takes the one form it cannot exhibit the other.[1] We see at once how well this theory of the two procreative substances fits into our philosopher's views about the generative process and the relation of the sexes. If the menses consist of the same material as the seed, except that it has not received in them the same development, we may compare them to imperfect seed.[2] So they contain potentially what the seed possesses actually; they are the matter, while the seed communicates the impulse to development and form. Being a remnant of the essential nutriment, the menses and the seed continue even after their union in the embryo the motion which they previously maintained in the bodies of the procreative pair, and by the exercise of their native impulse to growth and nutrition produce something that resembles its parents.[3] If the being to be brought forth were merely vegetable, the female, he holds, would suffice for its development, since the nutritive forces of the soul are already active in her portion of the procreative substance. For the birth of an animal, on the other hand, male seed is indispensable, since it alone contains the germ of sensitive life.[1] The matter of the male having thus begun to operate actively upon the passive substance of the female, an effect is produced corresponding to the nature of both. Their proper nature grows and develops from the two elements, not because the materials are spatially attracted to their like, but because each element when once set in motion moves in the direction for which it has a natural predisposition[2]—because, in fact, the seed contains the germ and potentiality of the soul.[1] The operative forces which nature uses in this process are heat and cold;[2] but the character of the generative matter and of the germinal life which it contains, determines and regulates these forces.[3] Every germ brings forth a being similar to that from which it sprang, because the blood, the direct source of nutriment to the body, tends to form a body of a certain definite sort, and this tendency continues to operate in the seed. Hence it happens that the character of individuals as well as of races comes to be propagated in the act of

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[1] *Gen. An.* ii. 1, 732, a, 3: *βελτίονος δὲ καὶ θειοτέρας τὴν φύσιν οὔσης τῆς αἰτίας τῆς κινούσης πρώτης, ῃ ὁ λόγος ὑπάρχει καὶ τὸ εἶδος, τῆς ὕλης, βέλτιον καὶ τὸ κεχωρίσθαι τὸ κρεῖττον τοῦ χείρονος. διὰ τοῦτ' ἐν ὅσοις ἐνδέχεται καὶ καθ' ὅσον ἐνδέχεται κεχώρισται τοῦ θήλεος τὸ ἄρρεν.*

[2] The detailed investigation of the subject is to be found in *Gen. An.* i. 17-20. Aristotle begins (721, b, 11 sqq. cf. c. 20, 729, a, 6, 730, a, 11) by denying the opinion that the semen is a secretion drawn from all parts of the body (on which cf ZELL. *Ph.d.Gr.* i. 805, 2, 720, 6, AUBERT-WIMMER, p. 7 of their ed.). He then (724, a, 14 sqq.) shows that *σπέρμα* must be one of two things, either an excrement from the organic parts of used-up matter (a *σύντηγμα*) or a surplus of nutritive matter (a *περίττωμα*), and in the latter case either a useless or a useful surplus. It cannot be a *σύντηγμα*, nor can it be a useless *περίττωμα*; it must therefore be a part of the useful *περίττωμα* of the body. But the most useful nutritive substance is the *τροφὴ ἐσχάτη* or the blood; the *σπέρμα* is therefore *τῆς αἱματικῆς περίττωμα τροφῆς, τῆς εἰς τὰ μέρη διαδιδομένης τελευταίας* (c. 19, 726, b, 9). This is the reason why children resemble their parents: *ὅμοιον γὰρ τὸ προσελθὸν πρὸς τὰ μέρη τῷ ὑπολειφθέντι· ὥστε τὸ σπέρμα ἐστὶ τὸ τῆς χειρὸς ἢ τὸ τοῦ προσώπου ἢ ὅλου τοῦ ζῴου ἀδιορίστως χεὶρ ἢ πρόσωπον ἢ ὅλον ζῷον· καὶ οἷον ἐκείνων ἕκαστον ἐνεργείᾳ, τοιοῦτον τὸ σπέρμα δυνάμει* (*ibid.* c. 13). On the properties and material composition of the semen, see *Gen. An.* ii. 2.

[3] *Ibid.* 726, b, 30 sqq. c. 20, 729, a, 20. Aristotle, c. 19, 727, a, 15 sqq. explains the weaker veins, the paler colour, the smaller quantity of hair, and the smaller bodies of women on the ground of defective supply of blood.

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[1] C. 19, 727, a, 25: *ἐπεὶ δὲ τοῦτ' ἐστὶν ὃ γίγνεται τοῖς θήλεσιν ὡς ἡ γονὴ τοῖς ἄρρεσιν, δύο δ' οὐκ ἐνδέχεται σπερματικὰς ἅμα γίνεσθαι ἀποκρίσεις, φανερὸν ὅτι τὸ θῆλυ οὐ συμβάλλεται σπέρμα εἰς τὴν γένεσιν. εἰ μὲν γὰρ σπέρμα ἦν, τὰ καταμήνια οὐκ ἂν ἦν· νῦν δὲ διὰ τὸ ταῦτα γίγνεσθαι ἐκεῖνο οὐκ ἔστιν.* It is shown also, c. 20, cf. ii. 4, 739, a, 20, that there is nothing else that can be taken for female semen.

[2] *Gen. An.* ii. 3, 737, a, 27: *τὸ γὰρ θῆλυ ὥσπερ ἄρρεν ἐστὶ πεπηρωμένον, καὶ τὰ καταμήνια σπέρμα, οὐ καθαρὸν δέ. ἓν γὰρ οὐκ ἔχει μόνον, τὴν τῆς ψυχῆς ἀρχὴν*, as may be seen in the case of wind-eggs, which are produced without the co-operation of the male. Cf. c. 5, 741, a, 15.

[3] *Ibid.* 737, a, 18: *τοῦ δὲ σπέρματος ὄντος περιττώματος καὶ κινουμένου κίνησιν τὴν αὐτὴν καθ' ἥνπερ τὸ σῶμα αὐξάνεται μεριζομένης τῆς ἐσχάτης τροφῆς, ὅταν ἔλθῃ εἰς τὴν ὑστέραν συνίστησι καὶ κινεῖ τὸ περίττωμα τὸ τοῦ θήλεος τὴν αὐτὴν κίνησιν ἥνπερ αὐτὸ τυγχάνει κινούμενον κἀκεῖνο. καὶ γὰρ ἐκεῖνο περίττωμα καὶ πάντα τὰ μόρια ἔχει δυνάμει, ἐνεργείᾳ δ' οὐθέν. καὶ γὰρ τὰ τοιαῦτ' ἔχει μόρια δυνάμει, ᾗ διαφέρει τὸ θῆλυ τοῦ ἄρρενος. ὥσπερ γὰρ καὶ ἐκ πεπηρωμένων ὁτὲ μὲν γίνεται πεπηρωμένα ὁτὲ δ' οὖ, οὕτω καὶ ἐκ θήλεος ὁτὲ μὲν θῆλυ ὁτὲ δ' οὔ, ἀλλ' ἄρρεν. τὸ γὰρ θῆλυ* &c. (see preced. n.). Cf. i. 19, 726, b, 13 (see n. 2 on preceding page).

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[1] *Gen. An.* ii. 5, 741, a, 9: if the material for the birth is contained in the female περίττωμα and the female portion of the same had the same soul as the male, why is it unproductive by itself? αἴτιον δ' ὅτι διαφέρει τὸ ζῷον τοῦ φυτοῦ αἰσθήσει . . . εἰ οὖν τὸ ἄρρεν ἐστὶ τὸ τῆς τοιαύτης ποιητικὸν ψυχῆς. ὅπου κεχώρισται τὸ θῆλυ καὶ τὸ ἄρρεν, ἀδύνατον τὸ θῆλυ ἐξ αὑτοῦ γεννᾷν ζῷον. It is seen, however, in the case of wind-eggs that the female is to a certain extent capable of unaided production. These have a certain δύναμις ψυχική, although only of the lowest kind, viz. θρεπτική, but as animals possess a sensitive soul as well, no animal can come from them. If there were animals of which no males are to be found, as perhaps is the case with the red sea mullet (although this is still far from certain), in such cases the female would be self-begotten. On the other hand, where there is a separation of the sexes this is impossible; otherwise the male would serve no purpose; whereas in reality it is from the male that the sensitive soul comes at the beginning.

[2] *Ibid.* ii. 4, 740, b, 12: ἡ δὲ διάκρισις γίγνεται τῶν μορίων [in the process of evolution] οὐχ ὥς τινες ὑπολαμβάνουσι διὰ τὸ πεφυκέναι φέρεσθαι τὸ ὅμοιον πρὸς τὸ ὅμοιον· [a view which he proceeds to refute] . . . ἀλλ' ὅτι τὸ περίττωμα τὸ τοῦ θήλεος δυνάμει τοιοῦτόν ἐστιν οἷον φύσει τὸ ζῷον, καὶ ἔνεστι δυνάμει τὰ μόρια ἐνεργείᾳ δ' οὐθὲν, διὰ ταύτην τὴν αἰτίαν γίνεται ἕκαστον αὐτῶν, καὶ ὅτι τὸ ποιητικὸν καὶ τὸ παθητικὸν ὅταν θίγωσιν, ὃν τρόπον ἐστὶ τὸ μὲν ποιητικὸν τὸ δὲ παθητικὸν, . . . εὐθὺς τὸ μὲν ποιεῖ τὸ δὲ πάσχει. ὕλην μὲν οὖν παρέχει τὸ θῆλυ, τὴν δ' ἀρχὴν τῆς κινήσεως τὸ ἄρρεν. The operative force is here the nutritive soul, whose instruments are cold and heat. c. 5, 741, b, 7: the male portion is the

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primary source of the evolution, as it is this which contributes the sensitive soul. *ἐνυπαρχόντων δ' ἐν τῇ ὕλῃ δυνάμει τῶν μορίων, ὅταν ἀρχὴ γένηται κινήσεως, ὥσπερ ἐν τοῖς αὐτομάτοις θαύμασι συνείρεται τὸ ἐφεξῆς καὶ ὃ βούλονται λέγειν τινὲς τῶν φυσικῶν, τὸ φέρεσθαι εἰς τὸ ὅμοιον, λεκτέον οὐχ ὡς τόπον μεταβάλλοντα τὰ μόρια κινεῖσθαι, ἀλλὰ μένοντα καὶ ἀλλοιούμενα μαλακότητι καὶ σκληρότητι καὶ χρώμασι καὶ ταῖς ἄλλαις ταῖς τῶν ὁμοιομερῶν διαφοραῖς, γινόμενα ἐνεργείᾳ ἃ ὑπῆρχεν ὄντα δυνάμει πρότερον*, a view which had already been proved in detail in c. 1 (from 733, b, 30, onwards).

[1] See on this, *Gen.* ii. 1, 733, b, 32, 735, a, 4 sqq. c. 3, 736, b, 8 sqq. and p. 6, n. 2, *supra*.

[2] In generation proper these spring from the *φύσις τοῦ γεννῶντος*; in spontaneous generation, from the *κίνησις καὶ θερμότης τῆς ὥρας*; *ibid.* ii. 6, 743, a, 32.

[3] *Ibid.* c. 1, 734, b, 31: *σκληρὰ μὲν οὖν καὶ μαλακὰ* &c. *ἡ θερμότης καὶ ψυχρότης ποιήσειεν ἂν* [*τὰ μόρια*], *τὸν δὲ λόγον, ᾧ ἤδη τὸ μὲν σὰρξ τὸ δ' ὀστοῦν, οὐκέτι, ἀλλ' ἡ κίνησις ἡ ἀπὸ τοῦ γεννήσαντος τοῦ ἐντελεχείᾳ ὄντος ὅ ἐστι δυνάμει ἡ* [read *τὸ*] *ἐξ οὗ γίνεται*, as is further expounded. c. 4, 740, b, 25 (see last note of preceding page). c. 6, 743, a, 3: *ἡ δὲ γένεσίς ἐστιν ἐκ τῶν ὁμοιομερῶν ὑπὸ ψύξεως καὶ θερμότητος.* After explaining how different materials are formed in both ways, he continues, l. 21: *αὕτη δὲ* [heat] *οὔτε ὅ τι ἔτυχε ποιεῖ σάρκα ἢ ὀστοῦν, οὔθ' ὅπῃ ἔτυχεν, ἀλλὰ τὸ πεφυκὸς καὶ ᾗ πέφυκε καὶ ὅτε πέφυκεν. οὔτε γὰρ τὸ δυνάμει ὂν ὑπὸ τοῦ μὴ τὴν ἐνέργειαν ἔχοντος κινητικοῦ ἔσται, οὔτε τὸ τὴν ἐνέργειαν ἔχον ποιήσει ἐκ τοῦ τυχόντος . . . ἡ δὲ θερμότης ἐνυπάρχει ἐν τῷ σπερματικῷ περιττώματι τοσαύτην καὶ τοιαύτην ἔχουσα τὴν κίνησιν καὶ τὴν ἐνέργειαν, ὅση σύμμετρος εἰς ἕκαστον τῶν μορίων . . . ἡ δὲ ψύξις στέρησις θερμότητός ἐστιν. χρῆται δ' ἀμφοτέροις ἡ φύσις ἔχουσι μὲν δύναμιν ἐξ ἀνάγκης ὥστε τὸ μὲν τοδὶ τὸ δὲ τοδὶ ποιεῖν, ἐν μέντοι τοῖς γινομένοις ἕνεκά τινος συμβαίνει τὸ μὲν ψύχειν αὐτῶν τὸ δὲ θερμαί-*

generation.[1] If the male seed, which communicates the impulse of development, has sufficient vigour to mature the substance offered to it, the child follows its father's sex: if it lacks the necessary warmth, a being of colder nature, a woman, is born. For the ultimate distinction between the two sexes is one of greater or less vital heat: the warmer nature can mature the blood to perfect seed, the colder must content itself with supplying the raw material of procreation in the catamenial discharge.[2] Woman is an unfinished man, left standing on a lower step in the scale of development.[3] The gen-

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νειν &c.; for all this takes place (l. 16) τῇ μὲν ἐξ ἀνάγκης τῇ δ' οὐκ ἐξ ἀνάγκης ἀλλ' ἕνεκά τινος.

[1] See p. 51, n. 2, *sup.* and p. 58, n. 3, *inf.* *Gen. An.* iv. 1, 766, b, 7: τὸ μὲν σπέρμα ὑπόκειται περίττωμα τροφῆς ὂν τὸ ἔσχατον. ἔσχατον δὲ λέγω τὸ πρὸς ἕκαστον [*i.e.* each part of the body; see p. 45, n. 4, *supra*] φερόμενον. διὸ καὶ ἔοικε τὸ γεννώμενον τῷ γεννήσαντι.

[2] After refuting various views as to the origin of the difference of the sexes, Aristotle proceeds, *Gen. An.* iv. 1, 765, b, 8: ἐπεὶ τὸ ἄρρεν καὶ τὸ θῆλυ διώρισται δυνάμει τινὶ καὶ ἀδυναμίᾳ (τὸ μὲν γὰρ δυνάμενον πέττειν καὶ συνιστάναι τε καὶ ἐκκρίνειν σπέρμα ἔχον τὴν ἀρχὴν τοῦ εἴδους ἄρρεν . . . τὸ δὲ δεχόμενον μὲν ἀδυνατοῦν δὲ συνιστάναι καὶ ἐκκρίνειν θῆλυ [similarly i. 20, 728, a, 18]) ἔτι εἰ πᾶσα πέψις ἐργάζεται θερμῷ, ἀνάγκη καὶ τῶν ζῴων τὰ ἄρρενα τῶν θηλέων θερμότερα εἶναι. [The proof being that the former excrete the prepared seed, the latter in menstruation the raw blood.] . . . ἅμα δ' ἡ φύσις τήν τε δύναμιν ἀποδίδωσιν ἑκάστῳ καὶ τὸ ὄργανον· βέλτιον γὰρ οὕτως . . . τρίτον δὲ πρὸς τούτοις ληπτέον ὅτι εἴπερ ἡ φθορὰ εἰς τοὐναντίον, καὶ τὸ μὴ κρατούμενον ὑπὸ τοῦ δημιουργοῦντος ἀνάγκη μεταβάλλειν εἰς τοὐναντίον. Hence the true explanation: ὅταν γὰρ μὴ κρατῇ ἡ ἀρχὴ μηδὲ δύνηται πέψαι δι' ἔνδειαν θερμότητος μηδ' ἀγάγῃ εἰς τὸ ἴδιον εἶδος τὸ αὑτοῦ, ἀλλὰ ταύτῃ ἡττηθῇ, ἀνάγκη εἰς τοὐναντίον μεταβάλλειν. . . . ἐπεὶ δ' ἔχει διαφορὰν ἐν τῇ δυνάμει, ἔχει καὶ τὸ ὄργανον διαφέρον· ὥστ' εἰς τοιοῦτον μεταβάλλει. The same account is repeated clearly and precisely, 766, b, 8. Cf. c. 3, 767, b, 10. A number of facts are adduced, c. 2, in support of this theory.

[3] See p. 52, n. 2, *supra*; *Gen. An.* ii. 3, 737, a, 27: τὸ γὰρ θῆλυ ὥσπερ ἄρρεν ἐστὶ πεπηρωμένον. iv. 6, 775, a, 14: ἀσθενέστερα γὰρ ἐστι καὶ ψυχρότερα τὰ θήλεα τὴν φύσιν καὶ δεῖ ὑπολαμβάνειν ὥσπερ ἀναπηρίαν εἶναι τὴν θηλύτητα φυσικήν. i. 20, 728, a, 17: ἔοικε δὲ καὶ τὴν μορφὴν γυνὴ καὶ παῖς, καὶ ἔστιν ἡ γυνὴ ὥσπερ ἄρρεν ἄγονον. v. 3, 784, a, 4. Cf. *Probl.* x. 8. The statement,

erative organs themselves are adapted to their functions; we must not regard them as the causes but as the signs of sexual difference.[1] We should rather look for the ground of sex distinction in the vital principle itself and in the central organ and seat of life: for though it is not complete until the sexual parts appear, yet its germs are laid in the formation of the heart at the very commencement of fœtal existence.[2] On this account sex plays a most various and important part in animal life, influencing to a greater or less extent the temper as well as the physical structure of animals,[3] while castration is followed by vast changes in the nature of men and brutes.[4]

Longit. V. 6, 467, a, 32, *νανωδέστερον γὰρ τοῦ θήλεος τὸ ἄρρεν*, the upper portions of his body being relatively greater, does not quite harmonise with this, for it is just the excessive size of those portions that constitutes the dwarfishness of children (*Part. An.* iv. 10, 686, b, 10; *De Mem.* 2, 453, a, 31, b, 6), with whom women are compared.

[1] See last note but one.

[2] *Ibid.* 766, a, 30: *εἰ οὖν τὸ μὲν ἄρρεν ἀρχή τις καὶ αἴτιον, ἔστι δ' ἄρρεν ᾗ δύναταί τι, θῆλυ δὲ ᾗ ἀδυνατεῖ, τῆς δὲ δυνάμεως ὅρος καὶ τῆς ἀδυναμίας τὸ πεπτικὸν εἶναι ἢ μὴ πεπτικὸν τῆς ὑστάτης τροφῆς, ὃ ἐν μὲν τοῖς ἐναίμοις αἷμα καλεῖται ἐν δὲ τοῖς ἄλλοις τὸ ἀνάλογον, τούτου δὲ τὸ αἴτιον ἐν τῇ ἀρχῇ καὶ τῷ μορίῳ τῷ ἔχοντι τὴν τῆς φυσικῆς θερμότητος ἀρχὴν, ἀναγκαῖον ἄρα ἐν τοῖς ἐναίμοις συνίστασθαι καρδίαν, καὶ ἢ ἄρρεν ἔσεσθαι ἢ θῆλυ τὸ γινόμενον. ἐν δὲ τοῖς ἄλλοις γένεσιν ὑπάρχει τὸ θῆλυ καὶ τὸ ἄρρεν τὸ τῇ καρδίᾳ ἀνάλογον. ἡ μὲν οὖν ἀρχὴ τοῦ θήλεος καὶ ἄρρενος καὶ ἡ αἰτία αὕτη καὶ ἐν τούτῳ ἐστίν. θῆλυ δ' ἤδη καὶ ἄρρεν ἐστὶν, ὅταν ἔχῃ καὶ τὰ μόρια οἷς διαφέρει τὸ θῆλυ τοῦ ἄρρενος.*

[3] The chief passages on this head are *H. An.* iv. 11, where the peculiarities in the physical structure of each of the sexes in the various animal tribes, and *ibid.* ix. 1, where differences of character are discussed.

[4] A description of which is given, *H. An.* ix. 503. *Gen. An.* iv. 1, 766, a. 28, gives the reason: *ὅτι ἔνια τῶν μορίων ἀρχαί εἰσιν. ἀρχῆς δὲ κινηθείσης πολλὰ ἀνάγκη μεθίστασθαι τῶν ἀκολουθούντων.* According to the passage just referred to, such an effect could not be expected to follow the excision of the testicles, but only of the heart: especially as Aristotle, *Gen. An.* v. 7, 787, b, 26, without knowing their special functions, treats the former as a mere appendage to the seminal ducts. For the account of the

Other phenomena besides the distinction of sex proceed from weakness in the procreative power. The movement communicated by the male seed tends to form a being similar to the parent from whose body was derived the motive force. If, however, the seed is not vigorous enough to overcome the generative substance of the female, a woman is born; or if it cannot succeed in imitating the paternal type, then the child resembles its mother and not its father; again, should the seed fail in both of these attempts, which usually happens, a female child is born with a resemblance to its mother.[1] If the movement is itself deficient in force,[2] the child lacks the personal characteristics which the movement ought to reproduce, and only receives, in descending degrees, the generic properties which the parent had possessed over and above those of his own individuality. Instead of the parental type, that of the family is transmitted, so that the child resembles his grandparents, or still more distant ancestors. So it may happen that nothing but the type of the race is communicated, so that the child, for instance, has a human form without any family characteristics. Lastly, it is possible that the offspring should turn out merely a living creature without even the human attributes, as in the case of children born with bestial forms.[3] If the proper relation between the male and female

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matter which he gives in accordance with the latter hypothesis, see *ibid.* 788, a, 3 sqq.

[1] *Gen. An.* iv. 3, 767, b, 15 sqq., 768, a, 2 sqq. 21 sqq.

[2] Aristotle expressly distinguishes, *ibid.* 768, a, 14, 31, ἐὰν λυθῶσιν αἱ κινήσεις, from the other case, ἐὰν μὴ κρατήσῃ ἡ κίνησις [τοῦ ἀνδρός].

[3] *Ibid.* iv. 3; cf. esp. 767, b, 24, 768, b, 15, 769, b, 2 sqq.

is altogether wanting, then no conception at all follows.[1]

Among the phenomena of life which are common to all animals we may next mention Sensation, the most important point of difference between animals and vegetables.[2] Sensation is a change produced in the percipient by the object perceived,[3] a movement communicated to the soul through the medium of the body.[4]

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[1] *Ibid.* c. 2, 767, a, 13 sqq. A number of other passages relating to the distinction of the sexes and to procreation, we must be content briefly to indicate. The sexual parts of different animals are discussed *Gen. An.* i. 2–16, ii. 6; *Hist. An.* iii. 1, cf. AUBERT-WIMMER, pp. 3 sq. of their edition of *De Gen. An.*; puberty, menstruation, and lactation, *Gen.* iv. 8, ii. 4, 738, a, 9 sqq.; the causes of fruitfulness and unfruitfulness, *Gen.* ii. 7, 746, a, 29–c. 8 *fin.*; πολυτοκία, ὀλιγοτοκία and μονοτοκία, certain kinds of abortion, the perfect and imperfect formation of children, superfœtation and the like, *Gen.* iv. 4–7; the formation of the bodies of animals and the order of the development of their parts, *Hist.* viii. 7 sq.; *Gen.* ii. 1, 734, a, 16–33, 735, a, 12 sq. c. 4, 739, b, 20–740, b, 25, c. 5, 741, b, 15 sqq. c. 6 (743, b, 20 compares nature to an artist, who first sketches the outline of his picture and then lays on the colours); the nourishment of the embryo through the navel, *Gen.* ii. 7, *Hist.* viii. 8; the production and development of birds, *Gen.* iii. 1 sq. 6; of fishes, iii. 3–5, 7; of mollusca and testacea, *ibid.* iii. 8; of insects, especially bees (with regard to which Aristotle holds that the queens and female workers are born of queens, drones of working bees, and that there is no marriage among them), *ibid.* iii. 9, 10, *Hist.* v. 19 (cf LEWES, *Arist.* § 188 sqq.); spontaneous generation, *ibid.* iii. 11, i. 23 *fin.*, *Hist.* v. 15 sq. c. 19, 551, a sq. c. 11, 543, b, 17, vi. 15, 569, a, 10 sqq.; the nature of the birth and the time of pregnancy, *ibid.* iv. 9.—The differences which separate the various grades of animal creation in respect of their origin and method of propagation will call for further discussion below, and the origin and gradual evolution of the soul will be the subject of the next chapter.

[2] See pp. 27 and 37, *supra*; and with the following account cf. BÄUMKER, *Des Arist. Lehre von den Sinnesvermögen* (Leipsic, 1877).

[3] *De An.* ii. 5 *init.*

[4] κίνησίς τις διὰ τοῦ σώματος τῆς ψυχῆς. *De Somno*, 1, 454, a, 9. How far we may speak of a 'movement of the soul' at all is the subject of subsequent discussion.

The nature of this process may be explained and estimated by the abstract laws of action and passivity.[1] It is the object of perception which sets the change in motion, the percipient which undergoes the change. The former is active, the latter passive. Hence the latter is related to the former in the same way as the actual to the possible or as form to matter. The perception for which a subject is fitted by its nature is developed into actuality by the object perceived; the form of the object is impressed upon the percipient.[2] This relation, however, is further conditioned by the nature of the percipient. Like thought, perception can only legitimately be called a *passive* affection, if the phrase is taken to include the progress from mere capacity to actuality.[3]

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[1] See the passages quoted vol. i. 454 sqq., to which express allusion is made *De An.* ii. 5, 417, a, 1.

[2] *De An.* ii. 5, 417, a, 9 to the end of the chapter, where the preceding discussion is summed up in the words: *τὸ δ' αἰσθητικὸν δυνάμει ἐστὶν οἷον τὸ αἰσθητὸν ἤδη ἐντελεχείᾳ, καθάπερ εἴρηται· πάσχει μὲν οὖν οὐχ ὅμοιον ὂν, πεπονθὸς δ' ὡμοίωται καὶ ἔστιν οἷον ἐκεῖνο*, iii. 2, 425, b, 25: *ἡ δὲ τοῦ αἰσθητοῦ ἐνέργεια καὶ τῆς αἰσθήσεως ἡ αὐτὴ μέν ἐστι καὶ μία, τὸ δ' εἶναι οὐ ταὐτὸν αὐταῖν· λέγω δ' οἷον ψόφος ὁ κατ' ἐνέργειαν καὶ ἀκοὴ ἡ κατ' ἐνέργειαν . . . ὅταν δ' ἐνεργῇ τὸ δυνάμενον ἀκούειν καὶ ψοφῇ τὸ δυνάμενον ψοφεῖν, τότε ἡ κατ' ἐνέργειαν ἀκοὴ ἅμα γίνεται καὶ ὁ κατ' ἐνέργειαν ψόφος.* And as operations and motions take effect upon passive subjects, this particular operation takes place upon the percipient. Cf. *infra*, p. 60, n. 3, p. 61, n. 4; and see *Part. An.* ii. 1, 647, a, 5 sqq.

[3] *De An.* ii. 5, 417, b, 2: *οὐκ ἔστι δ' ἁπλοῦν οὐδὲ τὸ πάσχειν, ἀλλὰ τὸ μὲν φθορά τις ὑπὸ τοῦ ἐναντίου, τὸ δὲ σωτηρία μᾶλλον τοῦ δυνάμει ὄντος ὑπὸ τοῦ ἐντελεχείᾳ ὄντος καὶ ὁμοίου οὕτως ὡς δύναμις πρὸς ἐντελέχειαν.* Thus in the case of learning, we must either refrain altogether from saying that the learner is the subject of an operation or we must distinguish between two kinds of *πάσχειν—τήν τε ἐπὶ τὰς στερητικὰς διαθέσεις μεταβολὴν καὶ τὴν ἐπὶ τὰς ἕξεις καὶ τὴν φύσιν* (cf. i. p. 197). Similarly with perception: so soon as the percipient comes into the world, *ἔχει ἤδη ὥσπερ ἐπιστήμην καὶ τὸ αἰσθάνεσθαι. καὶ τὸ κατ' ἐνέργειαν δὲ ὁμοίως λέγεται τῷ θεωρεῖν* (as the latter is the actual application of a faculty which is already possessed, so perception is the activity of a faculty which already exists in the percipient); *διαφέρει δὲ* [sc. *τὸ αἰσθάνεσθαι τοῦ θεωρεῖν*], *ὅτι τοῦ μὲν τὰ ποιητικὰ*

Perception, therefore, may be equally described as an act, or more accurately as the joint act of percipient and perceived,[1] which act, however, has its seat in the former.[2] Further, the perceived object can be said to stand to the percipient in the relation of actuality to possibility only in so far as the one is capable of being perceived and the other of perceiving. It is not the *matter* of an object which acts upon the sense in question, but only *those properties* of an object which the particular sense is designed to perceive. Hence it follows that it is the sensible form of objects without the matter that is received in the act of sensation. The material object itself is not communicated to the percipient, but only its operation.[3] This apprehension of the

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τῆς ἐνεργείας ἔξωθεν, τὸ ὁρατὸν καὶ τὸ ἀκουστόν &c. iii. 7, 431, a, 4: *φαίνεται δὲ τὸ μὲν αἰσθητὸν ἐκ δυνάμει ὄντος τοῦ αἰσθητικοῦ ἐνεργείᾳ ποιοῦν·* [The perceived object makes that which is capable of perception and which is only a *δυνάμει ὂν* into an *ἐνεργείᾳ ὄν*.] *οὐ γὰρ πάσχει οὐδ' ἀλλοιοῦται. διὸ ἄλλο εἶδος τοῦτο κινήσεως* [something different from *κίνησις*]. *ἡ γὰρ κίνησις τοῦ ἀτελοῦς ἐνέργεια ἦν, ἡ δ' ἁπλῶς ἐνέργεια ἑτέρα ἡ τοῦ τετελεσμένου* (such also, however, is the *αἰσθητικὸν* according to ii. 5, 417, b, 29 sqq.).

[1] *De An.* iii. 2, 426, a, 15: *ἐπεὶ δὲ μία μέν ἐστιν ἡ ἐνέργεια ἡ τοῦ αἰσθητοῦ καὶ ἡ τοῦ αἰσθητικοῦ, τὸ δ' εἶναι ἕτερον* &c. Cf. foll. n. There is here no question of any reciprocal operation of the sensible object and the sensitive organ (PRANTL, *Arist. v. d. Farben*, 144, whom KAMPE criticises, *Erk.-Theorie d. Arist.* 80, 4), for the object is not subject to any operation, but there is a joint operation, the result of which is perception. That this act gives a true account of the objects perceived, has already been said, in vol. i. pp. 208 sqq.

[2] *De An.* ii. 2, 456, a, 5: *εἰ δή ἐστιν ἡ κίνησις καὶ ἡ ποίησις καὶ τὸ πάθος ἐν τῷ ποιουμένῳ, ἀνάγκη καὶ τὸν ψόφον καὶ τὴν ἀκοὴν τὴν κατ' ἐνέργειαν ἐν τῇ κατὰ δύναμιν εἶναι . . . ἡ μὲν οὖν τοῦ ψοφητικοῦ ἐνέργειά ἐστι ψόφος ἢ ψόφησις, ἡ δὲ τοῦ ἀκουστικοῦ ἀκοὴ ἢ ἄκουσις.* Similarly with all the other senses: *ἡ τοῦ αἰσθητοῦ ἐνέργεια καὶ ἡ τοῦ αἰσθητικοῦ ἐν τῷ αἰσθητικῷ.*

[3] *De An.* ii. 12 *init.*: *ἡ μὲν αἴσθησίς ἐστι τὸ δεκτικὸν τῶν αἰσθητῶν εἰδῶν ἄνευ τῆς ὕλης, οἷον ὁ κηρὸς τοῦ δακτυλίου ἄνευ τοῦ σιδήρου καὶ τοῦ χρυσοῦ δέχεται τὸ σημεῖον, λαμβάνει δὲ τὸ χρυσοῦν ἢ τὸ*

form without the matter is only possible where there is in the soul a point of unity, a centre in which the sensible impressions can reflect themselves; and on this account perception first appears in the animal kingdom.[1] Moreover, since the faculty of perception is the force and form of the physical organ, it presupposes a certain harmony in its component parts; and if this harmony is disturbed by too vehement an impression on the sense, then the faculty of perception is lost.[2] The seat of this faculty is invariably a homogeneous body[3] which must contain potentially both of the opposite qualities that may be communicated to it by the objects of sense; but just for this reason it must itself stand midway between them.[4] The operation of the object upon

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χαλκοῦν σημεῖον, ἀλλ' οὐχ ᾗ χρυσὸς ἢ χαλκὸς, ὁμοίως δὲ καὶ ἡ αἴσθησις ἑκάστου ὑπὸ τοῦ ἔχοντος χρῶμα ἢ χυμὸν ἢ ψόφον πάσχει, ἀλλ' οὐχ ᾗ ἕκαστον ἐκείνων λέγεται, ἀλλ' ᾗ τοιονδὶ καὶ κατὰ τὸν λόγον. (There is no trace, however, in this passage of what VOLKMANN, *Grundz. d. Arist. Psychol.* [*Abhandl. d. böhm. Gesellsch.* x. 126 sq. *Psychol.* i. 218] finds in it, viz. that 'sense is not affected by sounds &c. in so far as each of these is what it is, but in so far as the sense is what it is.') Cf. foll. n. and *De An.* iii. 2, 425, b, 23: τὸ γὰρ αἰσθητήριον δεκτικὸν τοῦ αἰσθητοῦ ἄνευ τῆς ὕλης ἕκαστον. Whence it follows that all perception is of a universal, a τοιόνδε; see i. 207, n. 1, *supra*.

[1] *De An.* ii. 12, 424, a 32: plants have no αἴσθησις, although they are not without souls; αἴτιον γὰρ τὸ μὴ ἔχειν μεσότητα, μηδὲ τοιαύτην ἀρχὴν οἵαν τὰ εἴδη δέχεσθαι τῶν αἰσθητῶν, ἀλλὰ πάσχειν μετὰ τῆς ὕλης. iii. 12, 434, a, 29: those ζῶντα are without αἴσθησις, ὅσα μὴ δεκτικὰ τῶν εἰδῶν ἄνευ τῆς ὕλης. Cf. also *supra*, pp. 33 sqq. and notes, as well as the remarks *infra*, upon the *sensus communis*.

[2] *De An.* ii. 12, 424, a, 26: the αἰσθανόμενον is a body (μέγεθος); αἴσθησις, on the other hand, is not μέγεθος, ἀλλὰ λόγος τις καὶ δύναμις ἐκείνου [τοῦ αἰσθανομένου]. φανερὸν δ' ἐκ τούτων καὶ διὰ τί ποτε τῶν αἰσθητῶν αἱ ὑπερβολαὶ φθείρουσι τὰ αἰσθητήρια· ἐὰν γὰρ ᾖ ἰσχυροτέρα τοῦ αἰσθητηρίου ἡ κίνησις, λύεται ὁ λόγος, τοῦτο δ' ἦν ἡ αἴσθησις, ὥσπερ καὶ ἡ συμφωνία καὶ ὁ τόνος κρουομένων σφόδρα τῶν χορδῶν. Cf. iii. 13, 435, b, 15.

[3] *Part. An.* ii. 1, 647, a, 2 sqq., where αἰσθητήρια in this sense are distinguished from the ὀργανικὰ μέρη (face, hands, &c.).

[4] Aristotle remarks this spe-

the senses depends upon a medium which transmits it from the one to the other. Flesh is the medium of the sense of touch, air and water of the other senses;[1] and to this medium the materials of which the organs of sense consist correspond. The connection, however, of the five senses with the four elements[2] is only tentatively adopted by Aristotle.[3] The higher tribes of animals

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cially of touch, *De An.* ii. 11, 423, b, 29 sqq. This sense, he says, perceives the opposite qualities of bodies; *τὸ δὲ αἰσθητήριον αὐτῶν τὸ ἁπτικὸν . . . τὸ δυνάμει τοιοῦτόν ἐστι μόριον*. Since perception is a *πάσχειν* by which the *δυνάμει ὂν* is made by the operative principle into something like that which itself is *ἐνεργείᾳ* (cf. *supra*, p. 59, n. 2), *διὸ τοῦ ὁμοίως* [sc. *ὡς τὸ αἰσθητήριον*] *θερμοῦ καὶ ψυχροῦ ἢ σκληροῦ καὶ μαλακοῦ οὐκ αἰσθανόμεθα, ἀλλὰ τῶν ὑπερβολῶν, ὡς τῆς αἰσθήσεως οἷον μεσότητός τινος οὔσης τῆς ἐν τοῖς αἰσθητοῖς ἐναντιώσεως. καὶ διὰ τοῦτο κρίνει τὰ αἰσθητά. τὸ γὰρ μέσον κριτικόν*: just as the eye in order that it may be able to perceive black and white must be neither of these actually but both potentially, so it is with the sense of touch.

[1] *Ibid.* ii. 7, 419, a, 7–35. According to this passage, the medium of the perceptions of sight is light, of hearing air, of smell moisture: *περὶ δὲ ἁφῆς καὶ γεύσεως ἔχει μὲν ὁμοίως οὐ φαίνεται δέ*. Their medium (see *supra*, p. 39, n. 4) is flesh. For further details, see *infra*, and in i. 518, n. 3, *supra*

[2] Aristotle remarks himself (*Part. An.* ii. 1, 647, a, 12; *De Sensu*, c. 2, 437, a, 19 sqq.) that several of his predecessors attempted to establish this connection, but he does not say to whom he refers. The citations on the views of Empedocles and Democritus (ZELLER, *Ph. d. Gr.* i. 723, 817, 3) and from Plato (*ibid.* ii. a, 727, 3) on this head are not sufficient to explain the statement (in the above passage *De Sensu*) that one of the four elements was assigned to each of the senses, but that this only raised the difficulty of the discrepancy in their respective numbers.

[3] See the two passages, *De An.* iii. 1 and *De Sensu*, 2, 438, b, 16 sqq. In the former of these Aristotle desires to show that there cannot be more than the five senses (the opposite had been asserted by Democritus: see ZELL. *Ph.d.Gr.* i. 817, 5), which he proves in this way: the properties of things are perceived either immediately or by means of a medium. The former is the case with the perception of touch (only in the sense, however, that the medium is in the percipient itself: see n. 1, *supra*, and cf. *De An.* ii. 11, 423, b, 12). In the latter case the sensitive organ for each class of perceptions must consist of an elementary material of the same kind as that through the medium of which the perceptions reach the

possess all the five senses; the lower are without one or other. It is only the sense of touch, and its de-

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senses. Properly speaking, however, we have only water and air to deal with, as fire operates as vital heat in all the senses, and earth peculiarly (*ἰδίως*) either in none or in touch (of which taste, according to Aristotle, is a subordinate variety: see p. 22, n. 1, *supra*). Even flesh, however, the organ of the latter sense, does not consist merely of earth, but of a mixture of earth and water and air. Although it is, therefore, the most material of all the organs of sense, it yet stands in the middle between the different kinds of tangible things, and is sensitive to them all. (*De An.* ii. 11, 423, a, 11 sqq. iii. 13, 435, a, 11-b, 2; *Part. An.* ii. 1, 647, a, 19, c. 8, 653, b, 29.) The pupil of the eye is of water; sounds are perceived by air in the passages of the ear; the sense of smell resides in both air and water. The perception of universal properties of things, however, such as form, size, motion, &c., cannot be confined to the organs of any particular sense, being in its nature common to all (cf. *infra*, pp. 66 sqq.).—In the second of the above passages it is said: *ὥστ' εἴπερ τούτων τι συμβαίνει, καθάπερ λέγομεν, φανερὸν ὡς δεῖ τοῦτον τὸν τρόπον ἀποδιδόναι καὶ προσάπτειν ἕκαστον τῶν αἰσθητηρίων ἑνὶ τῶν στοιχείων. τοῦ μὲν ὄμματος τὸ ὁρατικὸν ὕδατος ὑποληπτέον, ἀέρος δὲ τὸ τῶν ψόφων αἰσθητικὸν, πυρὸς δὲ τὴν ὄσφρησιν. ὃ γὰρ ἐνεργείᾳ ἡ ὄσφρησις τοῦτο δυνάμει τὸ ὀσφραντικόν . . . ἡ δ' ὀσμὴ καπνώδης τίς ἐστιν ἀναθυμίασις, ἡ δ' ἀναθυμίασις ἡ καπνώδης ἐκ πυρός . . . τὸ δ' ἁπτικὸν γῆς. τὸ δὲ γευστικὸν εἶδός τι ἁφῆς ἐστίν.* It is impossible (as ALEX. *in loco*, p. 80 sq. pointed out) to suppose that Aristotle here intends to assign the organs of the various senses to the four elements respectively. He here repeats what he says in the *De An.* of the organ of smell when he remarks that it is merely *δυνάμει* what *ὄσφρησις* is *ἐνεργείᾳ*, *δυνάμει γὰρ θερμὴ ἡ τοῦ ψυχροῦ ὕλη ἐστὶν*, and that, like the eye, it is closely connected with the brain, the coldest and dampest part of the body; but smell itself is assigned to fire, because it is produced by the heating of the cold olfactory organ by the *ὀσμὴ καπνώδης*, which is of a fiery nature. (So also c. 5. 444, a, 8–22, where Aristotle explains on this ground the æsthetic pleasure in smells peculiar to man; see last note on next page.) But according to Bekker's text, the words *φανερὸν ὡς δεῖ* &c. would give the meaning just referred to as inadmissible. It is all the more welcome to find that, as BÄUMKER, p. 47 sq. reminds us, four of the seven MSS. in *De Sensu*, 438, b, 17, give *εἰ* before *δεῖ*, so that we may read: *φανερὸν ὡς εἰ δεῖ . . . τῶν στοιχείων, τοῦ μὲν ὄμματος* &c. In this view, Aristotle offers the explanation that follows only hypothetically, and from a point of view different from his own. This view of the passage corresponds precisely with that of ALEX. *ibid.*, who seems, therefore, also to have read *εἰ* before *δεῖ*; cf. p. 78:

pendent sense of taste, which is quite indispensable.[1] Of touch Aristotle says that it is as impossible for an animal to be without it as for any other creature but an animal to possess it. It is, in fact, the most universally important sign of life; and therefore any excessive impression made upon this sense would not, as in the case of the others, destroy a single organ alone, but the life itself of the animal.[2] These two senses are thus the commonest and lowest; they serve the baser needs of life:[3] while sight and hearing, as the means of rational development, occupy the highest rank. Hearing, however, deserves the preference, since we owe to this sense the possibility of oral instruction.[4] Of all living creatures man is furnished with the subtlest taste and subtlest feeling; many animals exhibit the other senses in a greater state of acuteness,[5] but in the case of man they play a special part in his spiritual culture.[6]

εἰ οὕτω, φησὶν, ἐπὶ τῆς ὄψεως ἔχει καὶ διὰ τοῦτο, καθὰ ἐγλίχοντό τινες, ἕκαστον αἰσθητήριον ἑκάστῳ τῶν στοιχείων ἀνατίθεται &c.; p. 80: *οὐ γὰρ δὴ ἀρέσκοντα αὑτῷ λέγει* &c.; cf. also *Part. An.* ii. 1, 647, a, 12.

[1] On this point cf. the not wholly consistent statements, *Hist. An.* iv. 8; *De An.* ii. 3, 415, a, 3 sqq. iii. 12, 434, b, 11–29, c. 13, 435, b, 17 sqq.; *De Sensu*, 1, 436, b, 12 sqq.; *De Somno*, 2, 455, a, 5; *Metaph.* i. 1, 980, b, 23; MEYER, *Arist. Thierk.* 432 sq., and p. 22, n. 1, *supra.*

[2] *De An.* iii. 12, 13, 434, b, 22, 435, b, 4–19.

[3] Feeling is indispensable to every animal for the preservation of life, the other senses, on the other hand, are so *οὐ τοῦ εἶναι ἕνεκα, ἀλλὰ τοῦ εὖ.* *De An.* iii. 13, 435, b, 19; cf. c. 12, 434, b, 22 sqq.

[4] *De Sensu*, 1, 436, b. 12 to end of chap.; *Metaph. ibid.*

[5] *De An.* ii. 9, 421, a, 9–26; *De Sensu*, 4, 440, b, 30 sqq.; *Part. An.* ii. 16 sq., 660, a, 11, 20; *Gen. An.* ii. 2, 781, b, 17.

[6] *De An. ibid.*: man's higher intelligence is explained on the ground of his finer feeling; but it is certain that Aristotle regarded the human eye and ear as also of higher significance for the development of the spiritual life than those of the lower animals; *Eth.* iii. 13, 1118, a, 16 sqq., he remarks of smell, hearing, and sight,

Coming to the particular senses, Aristotle observes that the seat of sight is in the pupil of the eye. Formed of water, this organ is affected by colours which are communicated to it through a transparent medium.[1] Sounds acting on our ears through the medium of air are transmitted to the sense by the air in the auditory passages.[2] Smells are conveyed to the olfactory organ by air and water: they are inhaled with the air by respiring animals; to non-respiring animals water is the medium of smell.[3] The primary qualities of matter which belong to all bodies and their particular modifica-

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De Sensu, 5, 443, b, 15–444, a, 9, *ibid.* l. 28 sqq., of smell, that man alone takes delight in these sensations for their own sake and not merely for the sake of food (albeit smell is his lowest sense: *De Sensu*, 4, 440, b, 31; *De An.* ii. 9, 421, a, 9); of the senses generally Aristotle says, *Gen. An. ibid.*: τὴν μὲν οὖν πόρρωθεν ἀκρίβειαν τῶν αἰσθήσεων ἥκιστα ὡς εἰπεῖν ἄνθρωπος ἔχει ὡς κατὰ μέγεθος τῶν ζῴων, τὴν δὲ περὶ τὰς διαφορὰς μάλιστα πάντων εὐαίσθητον, his organs of sense being the purest, and the least earthy and material, and his skin being the finest. **Meyer**, *ibid.* 435 sq., brings together his statements with regard to the sensitive organs of the various animals.

[1] See p. 64, *supra*; *De Sensu*, 2, 438, a, 12 sqq. b, 5; *Hist. An.* i. 8, 491, b, 20; *Part. An.* ii. 8, 653, b, 25, c. 10, 686, a, 37 sq.; *Gen. An.* ii. 6, 744, a, 5, and elsewhere; cf. **Bäumker**, 48 sq., and i 518, n. 3, *supra*. That the eyes also operate upon the objects (and that not merely by reflecting the light) is proved, *De Insomn.* 2, 459, b, 23 sqq., by a fictitious experience.

[2] *Part. An.* ii. 10, 656, b, 13 sqq.; *De An.* ii. 8, 420, a, 2 sqq.; cf. p. 478; **Bäumker**, 52. It is not quite clear how Aristotle conceives of the connection of this air with the central organ of sense; he merely remarks, *Part. An. ibid.*, that the ears are united with the occiput (which, according to his opinion, i. 262, n. 1, *supra*, is empty) by means of passages.

[3] *De An.* ii. 9, 421, b, 8 sqq. iii. 1 (see p. 6, *supra*); *De Sensu*, 5, 442, b, 27 sq. 444, a, 8 sqq.; cf. p. 537, 3, 539, 6, 478, *med.*; **Bäumker**, 53 sq. It has been already remarked, p. 62, n. 3, *supra*, that the sense of smell also is connected with the brain, but there is nothing said about any connection between it and the heart. Aristotle shows, *De Sensu*, 5, 455, a, 4 sqq., that smell occupies a middle position between the αἰσθήσεις ἁπτικαὶ and δι' ἄλλου αἰσθητικαί.

tions are the proper objects of the sense of touch.[1] The organ of touch is the heart: the medium through which impressions are transmitted to the heart is the flesh; [2] and the same may be said of taste, which is nothing but a species of touch,[3] the only difference being that the tongue is its sole conductor.[4] How the sensations communicated by particular senses can have their seat in the head,[5] while the seat of the sensitive life itself is in the heart,[6] and all sensation belongs to one and the same part of the soul,[7] Aristotle fails to explain.[1] If his view is that the pictorial image is generated in the organs of sense, while its reference to the object takes place in the heart,[2] the question still remains, how can sensation originate in organs in which the sensitive soul does not reside?

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[1] *De An.* ii. 11, 423, b, 26: *ἁπταὶ μὲν οὖν εἰσιν αἱ διαφοραὶ τοῦ σώματος ᾗ σῶμα· λέγω δὲ τὰς διαφορὰς αἳ τὰ στοιχεῖα διορίζουσι, θερμὸν ψυχρὸν, ξηρὸν ὑγρόν.* Besides these fundamental qualities the sense of touch perceives also hardness and softness and others, and Aristotle asks accordingly, 422, b, 19, whether it is only one sense or several. He rejects the latter supposition, however, l. 27 sqq., with the remark that the other senses also perceive more than one *ἐναντίοτης*: by hearing, for example, besides height and depth we perceive loudness of sound, softness and roughness in the voice, &c. Therefore BRENTANO'S assertion (*Psychol. d. Ar.* 85) that it is erroneous according to Aristotle to regard feeling as only a single sensitive faculty, is not accurate.

[2] See p. 39, n. 4, p. 62 n. 3, *sup.*; *De An.* ii. 11, 422, b, 20, 35 sqq. 423, b, 1 sqq 22; *Part. An.* ii. 10, 656, b, 35; *De Vita*, 3, 469, a, 5–20; BÄUMKER, 54 sqq.

[3] See p. 22, n. 1, *supra*, and on the sources of taste, i. 518 sq.

[4] *De An.* ii. 11, 423, a, 17 sqq. c. 10, 422, a, 34.

[5] BÄUMKER, 78 sqq., shows as against SCHELL (*Die Einheit des Seelenl. nach Ar.* 163 sqq.) from *De An.* ii. 1, 412, b, 18, 413, a, 2, ii. 11, 423, b, 17 sqq. iii. 2, 426, b, 8; *Part. An.* ii. 1, 647, a, 2 sqq. c. 8, 653, b, 24 sqq., and other passages, that Aristotle assumes this to be the case in respect to the above three senses. Cf. *De Sensu*, c. 2 (p. 62, n. 3, *supra*).

[6] *Vide* p. 41 sq. The view that the brain is the seat of sensation (ALCMÆON, see ZELL. *Ph.d.Gr.* i. 456, 1; PLATO, *Tim.* 67, B, 76, D), is expressly refuted by Aristotle: *Part. An.* ii, 10, 656, a, 15 sqq. b, 11, c. 7, 652, b, 2; *De Juvent.* 3, 469, a, 20. He holds himself that the brain is devoid of feeling, resting his view upon supposed experiences, upon which see MEYER, *Arist. Thierk.* 431.

[7] *De An.* iii. 1, 425, a, 31, and more fully *De Sensu*, 7, 449, a, 5 sqq., where *inter alia*: *ἀνάγκη ἄρα ἕν τι εἶναι τῆς ψυχῆς, ᾧ ἅπαντα αἰσθάνεται, . . ἄλλο δὲ γένος δι' ἄλλου.* Just as one and the same thing has different properties, so *θετέον καὶ ἐπὶ τῆς ψυχῆς τὸ αὐτὸ καὶ ἓν εἶναι ἀριθμῷ τὸ αἰσθητικὸν*

πάντων, τὸ μέντοι εἶναι ἕτερον καὶ ἕτερον τῶν μὲν γένει τῶν δὲ εἴδει. ὥστε καὶ αἰσθάνοιτ' ἂν ἅμα τῷ αὐτῷ καὶ ἑνὶ, λόγῳ δ' οὐ τῷ αὐτῷ. *De Somno*, 2, 455, a, 20: ἔστι μὲν γὰρ μία αἴσθησις καὶ τὸ κύριον αἰσθητήριον ἕν τὸ δ' εἶναι αἰσθήσει τοῦ γένους ἑκάστου ἕτερον (its character is different in each kind of sensation).

[1] Neither from *Part. An.* iii. 4, 666, a, 16, ii. 10, 656, b, 3; cf. *Hist. An.* i. 4, 489, a, 23; *De Somno*, 2, 455, b, 6, nor from the passage in c. 3 of the π. ἐνυπνίων, which seems to give the greatest support to this view, are we justified in saying with certainty that Aristotle regards the blood as the conductor by which the sensitive movements are led to the heart. He certainly assumes that a portion of the blood flows at intervals back to the heart, carrying its own natural motions with it (*ibid.* 461, b, 11). From this, however, he merely concludes (as will be shown, p. 71, n. 3, *infra*) that the movements caused by previous perceptions and latent in the organs of sense, being no longer overpowered by movements in the blood, are liberated and carried in like manner to the heart; it appears, therefore, that he regards them as different from those in the blood.

[2] This is the view put forward in the passage just referred to in the treatise upon Dreams, where 461, a, 30 goes on to say: τῷ μὲν γὰρ ἐκεῖθεν [sc. ἀπὸ τῶν αἰσθητηρίων] ἀφικνεῖσθαι τὴν κίνησιν πρὸς τὴν ἀρχὴν καὶ ἐγρηγορὼς δοκεῖ ὁρᾶν καὶ ἀκούειν καὶ αἰσθάνεσθαι, καὶ διὰ τὸ τὴν ὄψιν ἐνίοτε κινεῖσθαι δοκεῖν οὐ κινουμένην ὁρᾶν φαμὲν, καὶ τῷ τὴν ἁφὴν δύο κινήσεις εἰσαγγέλλειν τὸ ἓν δύο δοκεῖν. The words refer, as the repetition of δοκεῖν shows, to the cases of self-deception discussed c. 2, 460, b, 3 sqq. 11, 20, 22 sqq. c. 3, 461, b, 30. These Aristotle explains on the ground that the judgment upon the object and the pictorial image are due to the exercise of different faculties (*ibid.* 460, b, 16: αἴτιον δὲ τοῦ συμβαίνειν ταῦτα τὸ μὴ κατὰ τὴν αὐτὴν δύναμιν κρίνειν τό τε κύριον [subj.] καὶ ᾧ τὰ φαντάσματα γίνεται). ὅλως γὰρ [as c. 3, 461, b, proceeds] τὸ ἀφ' ἑκάστης αἰσθήσεώς φησιν ἡ ἀρχὴ, ἐὰν μὴ ἑτέρα κυριωτέρα ἀντιφῇ. φαίνεται μὲν οὖν πάντως, δοκεῖ δ' οὐ πάντως τὸ φαινόμενον [the sun, for example, appears to us to be a foot broad, nevertheless we refuse to believe it; c. 2, 460, b, 18], ἀλλ' ἐὰν [but only when] τὸ ἐπικρῖνον κατέχηται ἢ μὴ κινῆται τὴν οἰκείαν κίνησιν. It is this κύριον καὶ ἐπικρῖνον (461, b, 24 sq.) which refers the sense-perception to its object. It, for instance, when sensation presents us with the image of a particular man, identifies it with the man in question. In sleep, on the other hand, when

The separate senses, however, are insufficient of themselves to explain the fact of sense-perception. The universal qualities of things—such as time, motion and rest, unity and multiplicity, size and form—are not, like sound and colour, the peculiar objects of special senses;[1] they are perceived by all the senses, and only indirectly by each. The faculty, therefore, by which they are perceived must be distinct from all the particular senses: it must be a *sensus communis* or 'common sense.'[2] This sense, moreover, enables us to compare and distinguish the perceptions of different senses.[3] When,

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consciousness is imprisoned, the image is taken for the object itself. The seat of this faculty cannot be other than a single *κύριον αἰσθητήριον* (*De Somno*, 2, 455, a, 21), of which sleep and waking are particular states (see p. 75, *infra*).

[1] *De An.* ii. 7, Aristotle distinguishes between *καθ' αὑτὰ* [not merely *κατὰ συμβεβηκὸς*] *αἰσθητὰ* between *ἴδια* and *κοινὰ*, remarking 418, a, 11: *λέγω δ' ἴδιον μὲν ὃ μὴ ἐνδέχεται ἑτέρᾳ αἰσθήσει αἰσθάνεσθαι . . . κοινὰ δὲ κίνησις, ἠρεμία, ἀριθμὸς, σχῆμα, μέγεθος.* Similarly, iii. 1, 425, a, 13: *ἀλλὰ μὴν οὐδὲ τῶν κοινῶν οἷόν τ' εἶναι αἰσθητήριόν τι ἴδιον, ὧν καὶ ἑκάστῃ αἰσθήσει αἰσθανόμεθα κατὰ συμβεβηκὸς* [TORSTRIK's proposal to read *οὐ κ. σ.* is rightly rejected by BRENTANO, *Psychol. d. Ar.* 98], *οἷον κινήσεως, στάσεως, σχήματος, μεγέθους, ἀριθμοῦ, ἑνός.* *De Mem.* 450, a, 9. On time see p. 73, n. 4, *infra.*

[2] We are informed of motion &c through the separate senses *κατὰ συμβεβηκὸς* (*De An.* iii. 1; *v.* preceding note). These qualities are accompaniments of particular sense-perceptions, and the multiplicity of the senses even assists us in distinguishing them from the latter (*ὅπως ἧττον λανθάνῃ τὰ ἀκολουθοῦντα καὶ κοινὰ*, *ibid.* 425, b, 5). Were we therefore confined for our perception of them to the particular senses, we should know them only as accessory (*e.g.* if we saw a white object, which moved, we should perceive only its colour and not its motion). *τῶν δὲ κοινῶν ἤδη ἔχομεν αἴσθησιν κοινὴν οὐ κατὰ συμβεβηκός· οὐκ ἄρ' ἔστιν ἰδία* (*ibid.* 425, a, 24 sqq.). *De Mem. ibid.* says that size and motion are known to us by the same faculty as time, *καὶ τὸ φάντασμα* [sc. *αὐτῆς*] *τῆς κοινῆς αἰσθήσεως πάθος ἐστίν.* Cf. i. 435, n. 2, *supra.*

[3] *De An.* iii. 2, 426, b, 8: each sense perceives *τὰς τοῦ ὑποκειμένου αἰσθητοῦ διαφορὰς*, *e.g.* sight, those of colour. *ἐπεὶ δὲ καὶ τὸ λευκὸν καὶ τὸ γλυκὺ καὶ ἕκαστον τῶν αἰσθητῶν πρὸς ἕκαστον κρίνομεν, τίνι αἰσθανόμεθα ὅτι διαφέρει; ἀνάγκη δὴ αἰσθήσει· αἰσθητὰ γάρ ἐστιν . . . οὔτε δὴ κεχωρισμένοις ἐνδέχεται κρίνειν ὅτι ἕτερον τὸ*

further, we declare the phenomena presented to us by the senses at one time to be objectively real, at another to be unreal, it cannot be our senses themselves that pronounce this judgment, for their presentations are in both cases alike ; nor if we are deceived in our judgment, are the senses to blame for the mistake, seeing that they always report correctly.[1] The common principle of all sense-perception is alone responsible for the reference of the perception to the object, and therefore for the mistakes that are made.[2] The same principle, finally, is the basis of self-consciousness which accompanies all sense-perception : since perception is different from the thing perceived, the senses which supply us with the picture of the object cannot also inform us of its objective reality.[3] The organ of the 'common sense' is the

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γλυκὺ τοῦ λευκοῦ, ἀλλὰ δεῖ ἑνί τινι ἄμφω δῆλα εἶναι. It must therefore be one and the same faculty by which we distinguish different kinds of sensations from one another : and to this, in order that these may be compared with one another, these must be simultaneously present, meeting in it as two lines meet in a common point. (The details of this theory, which suggests many difficulties, cannot be here discussed ; besides TRENDELENBURG *in loco*, see the discussion of it in KAMPE, *Erkenntnissth. d. Ar.* 107; BRENTANO, *Psychol. d. Ar.* 90 sqq. ; BÄUMKER, 70 sqq.). Similarly c. 7, 431, a, 20 : *τίνι δ' ἐπικρίνει τί διαφέρει γλυκὺ καὶ θερμόν . . . ἔστι γὰρ ἕν τι· οὕτω δὲ καὶ ἡ στιγμὴ καὶ ὅλως ὁ ὅρος* [the boundary] &c. Just as one sense knows the distinction between white and black, so one and the same faculty can know the distinction between whiteness and sweetness. *De Somno*, 2, 455, a, 17 : *καὶ κρίνει δὴ καὶ δύναται κρίνειν ὅτι ἕτερα τὰ γλυκέα τῶν λευκῶν, οὔτε γεύσει οὔτε ὄψει οὔτ' ἀμφοῖν, ἀλλά τινι κοινῷ μορίῳ τῶν αἰσθητηρίων ἁπάντων. ἔστι μὲν γὰρ μία αἴσθησις* &c. (see p. 66, n. 7, *supra*).

[1] Cf. i. 209, n. 3, *supra*.

[2] See p. 67, n. 2, *supra*, where this is shown to have been Aristotle's view.

[3] *De An.* iii. 2 *init.* : *ἐπεὶ δ' αἰσθανόμεθα ὅτι ὁρῶμεν καὶ ἀκούομεν, ἀνάγκη ἢ τῇ ὄψει αἰσθάνεσθαι ὅτι ὁρᾷ, ἢ ἑτέρᾳ* [sc. *αἰσθήσει*]. The former, however, is inadmissible, if for no other reason, because in that case we must assign colour to the seeing subject [the *ὁρῶν πρῶτον*), as to all visible things. *De Somno*, 2, 455, a, 15 : *ἔστι δέ τις καὶ κοινὴ δύναμις ἀκολουθοῦσα πάσαις, ᾗ καὶ ὅτι ὁρᾷ*

heart,[1] in which, as we have already seen, the general principle of the sensitive life resides.[2]

To this single faculty of perception, or 'common sense,' Aristotle proceeds to attribute a number of important mental phenomena.[3] It is the source of imagination and memory,[4] which are therefore shared by many brutes as well as by man. Imagination is a movement produced by sensation, an after-effect of the sense-perception[5]—in other words a spent sensa-

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καὶ ἀκούει αἰσθάνεται [so BONITZ, *Arist. Stud.* iii. 72, reads according to the text of two MSS.; BEKK. has *καὶ αἰσθ.*]· *οὐ γὰρ δὴ τῇ γε ὄψει ὁρᾷ ὅτι ὁρᾷ . . . ἀλλά τινι κοινῷ μορίῳ τῶν αἰσθητηρίων ἁπάντων.*

[1] The heart is the *ἓν κοινὸν αἰσθητήριον, εἰς ὃ τὰς κατ' ἐνέργειαν αἰσθήσεις ἀναγκαῖον ἀπαντᾷν* (*De Juvent.* 1, 467, b, 28); *τό γε κύριον τῶν αἰσθήσεων ἐν ταύτῃ τοῖς ἐναίμοις πᾶσιν. ἐν τούτῳ γὰρ ἀναγκαῖον εἶναι τὸ πάντων τῶν αἰσθητηρίων κοινὸν αἰσθητήριον* (*ibid.* c. 3, 469, a, 10).

[2] Cf. *supra*, p. 42 sq. and p. 66, n. 6, and on the question how the sensations of the three senses which have their seat in the head are transmitted to the heart, p. 67, n. 1. But the heart is also the seat of the sense of touch (see p. 67, n. 1, *supra*); and to this the remark, *De Somno*, 2, 455, a, 22, seems to refer, where it is said that the *ἴδιον* and the *κοινὸν* of *αἴσθησις* [for this we must suppose to be the meaning of *τοῦτο*, l. 22, placing with BONITZ the words *οὐ γὰρ . . . χρώματος*, l. 17–22, in a parenthesis] *ἅμα τῷ ἁπτικῷ μάλισθ' ὑπάρχει*, this being the only one of the senses whose organ is also the central organ of sensation.

[3] For the following account see FREUDENTHAL, *Ueber d. Begriff d. Wortes φαντασία b. Arist.* 1863.

[4] *De An.* iii. 3, 428, a, 9, 21, c. 10, 433, a, 11, c. 11 *init.*; *Hist. An.* i. 1, 488, b, 25; *De Mem.* 1, 449, a, 28, 450, a, 15, c. 2, 453, a, 6; *Metaph.* i. 1, 980, a, 27, b, 25; cf. p. 71, n. 3, p. 73, n. 4, *infra.* Some animals, therefore, dream as well as man, *Divin. p. S.* 2, 463, b, 12.

[5] After showing, *De An.* iii. 3, that it is neither *αἴσθησις*, nor *νοῦς*, nor *ἐπιστήμη*, nor *δόξα*, nor a combination of *δόξα* and *αἴσθησις*, Aristotle proceeds, 428, b, 10: *ἀλλ' ἐπειδὴ ἔστι κινηθέντος τουδὶ κινεῖσθαι ἕτερον ὑπὸ τούτου, ἡ δὲ φαντασία κίνησίς τις δοκεῖ εἶναι καὶ οὐκ ἄνευ αἰσθήσεως γίγνεσθαι ἀλλ' αἰσθανομένοις καὶ ὧν αἴσθησις ἐστὶν, ἔστι δὲ γίνεσθαι κίνησιν ὑπὸ τῆς ἐνεργείας τῆς αἰσθήσεως, καὶ ταύτην ὁμοίαν ἀνάγκη εἶναι τῇ αἰσθήσει, εἴη ἂν αὕτη ἡ κίνησις οὔτε ἄνευ αἰσθήσεως ἐνδεχομένη οὔτε μὴ αἰσθανομένοις ὑπάρχειν, καὶ πολλὰ κατ' αὐτὴν καὶ ποιεῖν καὶ πάσχειν τὸ ἔχον, καὶ εἶναι καὶ ἀληθῆ καὶ ψευδῆ.* L. 30: *εἰ οὖν μηθὲν μὲν ἄλλο ἔχει τὰ εἰρημένα*

tion.[1] The motion caused by the external impression upon the sensitive organ not only produces an immediate effect in the sensation which follows, but continues in the organ,[2] whence under certain circumstances it passes to the central organ, and in this way reproduces the pictorial image,[3] even in the absence of the ob-

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ᾗ φαντασία [so the majority of the MSS.; TORSTR. with E reads ᾗ ἡ φαντ., but considers the words spurious; BEKK. and TREND. are certainly wrong in reading ᾗ μὴ φαντασίαν] τοῦτο δ' ἐστὶ [TORSTR. conj. ἔχει] τὸ λεχθὲν, ἡ φαντασία ἂν εἴη κίνησις ὑπὸ τῆς αἰσθήσεως τῆς κατ' ἐνέργειαν γιγνομένη. *De Insomn.* 1, 459, a, 17 (a passage which establishes the true reading in *De An.* 429, a, 2 as γιγνομένη, not -ης).

[1] *Rhet.* i. 11, 1370, a, 28: ἡ δὲ φαντασία ἐστὶν αἴσθησίς τις ἀσθενής.

[2] *De Mem.* 1, 350, a, 27: the πάθος, where ἕξις is μνήμη, consists of a kind of ζωγράφημα, which αἴσθησις produces in the soul (*i.e.* the ψυχὴ αἰσθητικὴ) and in the part of the body where it resides; ἡ γὰρ γινομένη κίνησις ἐνσημαίνεται οἷον τύπον τινὰ τοῦ αἰσθήματος καθάπερ οἱ σφραγιζόμενοι τοῖς δακτυλίοις. On this account, under deep emotion or in the early years of childhood, memory is weak, the excitement being too strong, καθάπερ ἂν εἰς ὕδωρ ῥέον ἐμπιπτούσης τῆς κινήσεως καὶ τῆς σφραγῖδος; conversely in old age διὰ τὸ ψήχεσθαι [wear] καὶ διὰ σκληρότητα τοῦ δεχομένου τὸ πάθος οὐκ ἐγγίνεται ὁ τύπος. The same phenomenon is explained, c. 2, 453, b, 4, as the result, not only in the case of children but of old men, of a κίνησις caused in the former case by the rapid growth, in the latter by the rapid decay, of the body. The latter passage would of itself be sufficient to prove that in Aristotle's view the persistence of the sense-impressions, which are compared to the impress of a stamp, is not that of actual material copies of the objects (even in his account of sense-perception itself, p. 58 sq. *supra*, Aristotle gives no countenance to such a view), nor even that of qualitative changes in the organs themselves, but is due to the continuance in the organs of the motions caused by the original sensation. This, however, becomes still more obvious from the quotations that follow in the next note. On the whole subject see FREUDENTHAL, p. 20 sqq.

[3] This is the sense of the passage in π. ἐνυπν. c. 3, already referred to. After showing in the beginning of c. 2, ὅτι καὶ ἀπελθόντος τοῦ θύραθεν αἰσθητοῦ ἐμμένει τὰ αἰσθήματα αἰσθητὰ ὄντα, that the faculty which gives judgment upon the corresponding objects is different from that which supplies the sense with the images of them (cf. p. 67, n. 2), and that in this way we get the delirious fancies of fever and other illusions of sense into which we are seduced by passion

ject.[1] To this power of reproducing images of sense Aristotle gives the name of Phantasy; and to the images themselves the cognate name of phantasms.[2] Phantasy,

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and emotion, Aristotle proceeds in c. 3: the motions caused partly by impressions made upon us from without, partly by those produced from within the body itself, are repressed during the day by the activity of sense and thought, and rendered imperceptible [*ἀφανίζονται ὥσπερ παρὰ πολὺ πῦρ ἔλαττον*—as the light of the stars before the sun]; *νύκτωρ δὲ δι' ἀργίαν τῶν κατὰ μόριον αἰσθήσεων καὶ ἀδυναμίαν τοῦ ἐνεργεῖν . . . ἐπὶ τὴν ἀρχὴν τῆς αἰσθήσεως* [the heart] *καταφέρονται καὶ γίνονται φανεραὶ καθισταμένης τῆς ταραχῆς.* The same thing takes place in sleep (461, a, 18 sqq.): *τὰ φαντάσματα καὶ αἱ ὑπόλοιποι κινήσεις αἱ συμβαίνουσαι ἀπὸ τῶν αἰσθημάτων* [those lingering remnants of the motions produced by impressions upon the senses which are the cause of phantasms; cf. p. 70, n. 5, *supra*] *ὁτὲ μὲν ὑπὸ μείζονος οὔσης τῆς εἰρημένης κινήσεως ἀφανίζονται πάμπαν, ὁτὲ δὲ τεταραγμέναι φαίνονται . . . καθισταμένου δὲ καὶ διακρινομένου τοῦ αἵματος ἐν τοῖς ἐναίμοις, σωζομένη τῶν αἰσθημάτων ἡ κίνησις ἀφ' ἑκάστου τῶν αἰσθητηρίων* [the motion caused by the sense-impression which is transmitted from the organs of sense to the heart] *ἐρρωμένα τε ποιεῖ τὰ ἐνύπνια, καὶ* [sc. *ποιεῖ*] *φαίνεσθαί τι καὶ δοκεῖν διὰ μὲν τὰ ἀπὸ τῆς ὄψεως καταφερόμενα ὁρᾶν, διὰ δὲ τὰ ἀπὸ τῆς ἀκοῆς ἀκούειν. ὁμοιοτρόπως δὲ καὶ ἀπὸ τῶν ἄλλων αἰσθητηρίων.* For the *ἀρχὴ* accepts as true what the senses report, so long as it remains uncontradicted by a more authoritative report (cf. p. 67, n. 2, *supra*); *ὅταν γὰρ καθεύδῃ* [as is explained, 461, b, 10], *κατιόντος τοῦ πλείστου αἵματος ἐπὶ τὴν ἀρχὴν συγκατέρχονται αἱ ἐνοῦσαι κινήσεις.* These exist, however, partly *δυνάμει* partly *ἐνεργείᾳ*, the former appearing (*ἐπιπολάζειν*) when the others by which they have hitherto been repressed disappear; *καὶ λυόμεναι ἐν ὀλίγῳ τῷ λοιπῷ αἵματι τῷ ἐν τοῖς αἰσθητηρίοις κινοῦνται* [in the blood which is left behind in the organs of sense after the main body of it has flowed back to the heart, the sensitive motions contained in it, which have hitherto lain latent, become liberated owing to the exhaustion, by the diminution of the quantity of blood, of those motions which have hitherto restrained them], *ἔχουσαι ὁμοιότητα ὥσπερ τὰ ἐν τοῖς νέφεσιν, ἃ παρεικάζουσιν ἀνθρώποις καὶ κενταύροις ταχέως μεταβάλλοντα.* So long as we keep hold even of a remnant of consciousness in sleep we do not mistake those images for the things; if on the other hand we have lost all consciousness that we are asleep, we take the one for the other. Dreams (*τὰ φαινόμενα εἴδωλα καθεύδοντι*, 462, a, 11) are therefore only the remnants of the motions caused by sensation (461, b, 21), as which they are often clearly recognised at the moment of waking.

[1] Hence he says, *De An.* iii. 8, 432, a, 9: *τὰ γὰρ φαντάσματα ὥσπερ αἰσθήματά ἐστι πλὴν ἄνευ ὕλης.*

[2] For proof of this see BONITZ,

moreover, he holds to be the source of the images which accompany thought.[1] To these it is impossible to apply the above sensational explanation:[2] they must be considered as in some way independent products of intellectual activity. Aristotle, however, has given us no account of their origin or their relation to the images of sense. While the reports of the single senses in their own departments are unerringly true, the imagination and the general reports of the 'common sense' are exposed to illusion.[3] If an imagination relates to earlier perceptions and presents a copy of them, then we call it memory (*μνήμη*);[4]

Ind. Arist. 811, b, 11 sqq. 812, a, 9, 25.

[1] See next chapter.

[2] Aristotle actually distinguishes between two kinds of *φαντασία*. *De An.* iii. 10, 433, b, 28: *ὀρεκτικὸν δὲ* [sc. *τὸ ζῷον ἐστὶν*] *οὐκ ἄνευ φαντασίας. φαντασία δε πᾶσα ἢ λογιστικὴ ἢ αἰσθητική. ταύτης μὲν οὖν καὶ τὰ ἄλλα ζῷα μετέχει.* c. 11, 434, a, 5: *ἡ μὲν οὖν αἰσθητικὴ φαντασία . . . καὶ ἐν τοῖς ἄλλοις ζῴοις ὑπάρχει, ἡ δὲ βουλευτικὴ ἐν τοῖς λογιστικοῖς.* As *αἰσθητικὴ φαντ.* can only here mean the power of reproducing from the motions that linger in the organs of sense the images represented by them, the *φαντ. βουλευτικὴ* (or *λογιστικὴ*: *τὸ γὰρ βουλεύεσθαι καὶ λογίζεσθαι ταὐτόν*, *Eth.* vi. 2, 1139, a, 12) must mean the power of projecting images of things in the future, of means and ends whose comparative value it is the function of *βούλευσις* to estimate with a view to the exercise of choice. Such images, however, are not, like those of memory, given in the excitations of the organs of sense.

[3] See i. 209, n. 3, and ii. 67, n. 2, *supra*.

[4] *De Mem.* i: all memory refers to the past and therefore presupposes the intuition of time, 449, b, 28: *ὅσα χρόνου αἰσθάνεται, ταῦτα μόνα τῶν ζῴων μνημονεύει, καὶ τούτῳ ᾧ αἰσθάνεται.* (See i. 436, n. 2, ii. 70, n. 4, and 71, n. 3, *supra*.) The faculty upon which memory depends is phantasy, for it always refers primarily to sensory images, and in a derivative and secondary sense to thoughts in so far as thought itself is impossible without a pictorial image, as is shown (450, a, 15) by the fact that brutes have memory as well as man. Cf. 450, a, 13: *ὥστε τοῦ νοουμένου* [*νοοῦντος* or *νοῦ*?] *κατὰ συμβεβηκὸς ἂν εἴη, καθ' αὑτό δὲ τοῦ πρώτου αἰσθητικοῦ.* 450, a, 22: *τίνος μὲν οὖν τῶν τῆς ψυχῆς ἐστὶν ἡ μνήμη, φανερὸν, ὅτι οὗπερ καὶ ἡ φαντασία· καὶ ἔστι μνημονευτὰ καθ' αὑτὰ μὲν ὅσα ἐστὶ φανταστὰ, κατὰ συμβεβηκὸς δὲ ὅσα μὴ ἄνευ φαντασίας.* The *φάντασμα*,

and the conscious reproduction of a memory is recollection (*ἀνάμνησις*). Man alone is capable of recollection, since he alone can reflect;[1] but memory, as we have said, is shared by brutes. Recollection depends upon the natural coherence of the movements which produce the imaginative pictures; by virtue of this coherence one image is called up by another formerly connected with it.[2] These movements have their seat in the

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however, only becomes a recollection (*μνημόνευμα*) when we recognise in it the copy of an actual perception, when we connect with it the thought that it is the repetition of a previous perception—a point upon which we are not always certain. Accordingly we sometimes fail to recognise actual memories as such, and at other times mistake mere fancies for memories (450, b, 18 sqq.). Τὶ *μὲν οὖν ἐστὶ μνήμη* [the chap. concludes] *καὶ τὸ μνημονεύειν, εἴρηται, ὅτι φαντάσματος, ὡς εἰκόνος οὗ φάντασμα, ἕξις* (which should be taken, not, with FREUDENTHAL, *ibid.* 36 and elsewhere, in its narrow sense discussed i. 285, n. 3, *supra*, but in the simple sense of having or keeping; cf. c. i. 449, b, 25) *καὶ τίνος μορίου τῶν ἐν ἡμῖν, ὅτι τοῦ πρώτου αἰσθητικοῦ καὶ ᾧ χρόνου αἰσθανόμεθα.*

[1] *Hist. An.* i. 1 *fin.*; *De Mem.* ii. 451, b, 2, 453, a, 6 sqq. As the reason of this, it is said in 453, a, 9: *ὅτι τὸ ἀναμιμνήσκεσθαί ἐστιν οἷον συλλογισμός τις· ὅτι γὰρ πρότερον ἢ εἶδεν ἢ ἤκουσεν ἤ τι τοιοῦτον ἔπαθε, συλλογίζεται ὁ ἀναμιμνησκόμενος, καὶ ἔστιν οἷον ζήτησίς τις. τοῦτο δ' οἷς καὶ τὸ βουλευτικὸν ὑπάρχει, φύσει μόνοις συμβέβηκεν· καὶ γὰρ τὸ βουλεύεσθαι συλλογισμός τίς ἐστιν. H. An. ibid.* also connects *βουλεύεσθαι* with *ἀναμιμνήσκεσθαι* as peculiar to man.

[2] Perhaps Aristotle gives this explanation, *ibid.* 451, a, 10 sqq., with a tacit reference to the mnemonics mentioned by him in other passages (*De An.* iii. 3, 427, b, 19; *De Insomn.* 1. 458, b, 20; *Top.* viii. 14, 163, b, 28). Recollection, he says, takes place, *ἐπειδὴ πέφυκεν ἡ κίνησις ἥδε γενέσθαι μετὰ τήνδε*; if the connection is a necessary one, the first is invariably recalled by the second; if it is merely habitual, only as a rule. Sometimes, however, a single occurrence creates a fixed habit. *Ἀναμιμνήσκεσθαι* both in the case of intentional and unintentional recollection consists in recalling former motions in their order until we arrive at the object of search. We start in this process *ἀπὸ τοῦ νῦν* [*i.e.* from a present intuition] *ἢ ἄλλου τινὸς, καὶ ἀφ' ὁμοίου ἢ ἐναντίου ἢ τοῦ σύνεγγυς.* Aristotle has not further developed these hints upon the so-called laws of the association of ideas, nor has he explained whether of the two principles of *ἀνάμνησις*, *ἀνάγκη* and *ἔθος*, the former embraces only those cases

heart.[1] Lastly, from sensation and imagination arise the feelings of pleasure and pain,[2] and the appetites, whereof we shall have to treat in detail when we come to Anthropology.[3]

Aristotle regarded Sleep and Waking as conditions of the common faculty of perception.[4] Sleep is the imprisonment of that faculty, waking is its free activity.[5]

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in which the physical movement that underlies the pictorial image spontaneously produces other such movements or includes also those in which the content of a given presentation conducts necessarily to the recollection of certain others. On the other hand, Aristotle gives us the general law which determines the succession of those associations which depend upon habit, viz. that each presentation is recalled by that which immediately preceded it on its former occurrence: *τῷ γὰρ ἔθει ἀκολουθοῦσιν αἱ κινήσεις ἀλλήλαις, ἥδε μετὰ τήνδε* (451, b, 28, cf. l. 22).

[1] *Ibid.* 453, a, 14 sqq., where it is stated, *ὅτι σωματικόν τι τὸ πάθος, καὶ ἡ ἀνάμνησις ζήτησις ἐν τοιούτῳ φαντάσματος . . . ὁ ἀναμιμνησκόμενος σωματικόν τι κινεῖ ἐν ᾧ τὸ πάθος*; what this is is not, indeed, further explained. Since, however, the seat of memory in general is the heart, it must be this which is meant.

[2] *De An.* ii. 2, 413, b, 23: *ὅπου μὲν γὰρ αἴσθησις, καὶ λύπη τε καὶ ἡδονὴ, ὅπου δὲ ταῦτα, ἐξ ἀνάγκης καὶ ἐπιθυμία.* iii. 3, 414, b, 4: *ᾧ δ' αἴσθησις ὑπάρχει, τούτῳ ἡδονή τε καὶ λύπη καὶ τὸ ἡδύ τε καὶ λυπηρόν.* (Similarly *De Somno*, 1, 454. b, 29.) c. 7, 431, a, 10: *ἔστι τὸ ἥδεσθαι καὶ λυπεῖσθαι τὸ ἐνεργεῖν τῇ αἰσθητικῇ μεσότητι πρὸς τὸ ἀγαθὸν καὶ κακὸν, ᾗ τοιαῦτα.* *Phys.* vii. 3, 247, a, 24: *ἡ γὰρ κατ' ἐνέργειαν τὸ τῆς ἡδονῆς ἢ διὰ μνήμην ἢ ἀπὸ τῆς ἐλπίδος. εἰ μὲν οὖν κατ' ἐνέργειαν, αἴσθησις τὸ αἴτιον, εἰ δὲ διὰ μνήμην ἢ δι' ἐλπίδα, ἀπὸ ταύτης· ἢ γὰρ οἷα ἐπάθομεν μεμνημένοις τὸ τῆς ἡδονῆς ἢ οἷα πεισόμεθα ἐλπίζουσιν.* We shall return to pleasure in dealing with the Ethics, but neither here nor there do we find an accurate psychological account of the feeling.

[3] Cf. meantime *De An.* ii. 2, 413, b, 23, c. 3, 414, b, 1–16, iii. 7, 431, a, 8 sqq. iii. 11; *De Somno*, i. 454, b, 29; *Part. An.* ii. 17, 661, a, 6.

[4] *Ibid.* c. 2, 455, a, 5–b, 13: sleep and waking do not belong to the senses individually, but to the *κύριον τῶν ἄλλων πάντων αἰσθητήριον*, the *πρῶτον ᾧ αἰσθάνεται πάντων.*

[5] *De Somno*, i. *e.g.* 454, a, 32: *εἰ τοίνυν τὸ ἐγρηγορέναι ὥρισται τῷ λελύσθαι τὴν αἴσθησιν . . . τὸ δ' ἐγρηγορέναι τῷ καθεύδειν ἐναντίον . . . τοῦτο δ' ἐστὶν ἀδυναμία δι' ὑπερβολὴν τοῦ ἐγρηγορέναι . . . ἀνάγκη πᾶν τὸ ἐγρηγορὸς ἐνδέχεσθαι καθεύδειν· ἀδύνατον γὰρ ἀεὶ ἐνεργεῖν.* It is impossible, however, that it should sleep for ever, for to sleep without awaking would be to lose the power of sensation. 454, b, 25: *τῆς δ'*

Hence these conditions are only exhibited by beings capable of sensation: but with them they are invariable, for the faculty of perception cannot remain active without experiencing exhaustion from time to time.[1] The object of sleep is to maintain life, to refresh and restore; and this again subserves the higher purpose of waking activity.[2] The natural causes of sleep lie in the nutritive process. The vital warmth drives the fumes away from the food upwards; collecting there, they make the head heavy and induce sleepiness; but cooling in the brain, they sink down again and cause a refrigeration of the heart, in consequence of which the activity of this chief organ of sensation is suspended. This condition lasts until the food is digested and the purer blood, destined for the upper portions of the body, is secreted from the denser sort, which passes downwards.[3] Dreams arise from the internal motions of the organs of sense, which continue after the transmission of external impressions has ceased. In the waking state these motions disappear beneath the action of sense and thought; but in sleep, on the contrary, and especially towards the end of sleep, when the disturbance of the blood has ceased, they stand forth more clearly.[4] Hence it may happen that an internal motion

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αἰσθήσεως τρόπον τινὰ τὴν μὲν ἀκινησίαν καὶ οἷον δεσμὸν ὕπνον εἶναί φαμεν, τὴν δὲ λύσιν καὶ τὴν ἄνεσιν ἐγρήγορσιν.

[1] See preceding note and *De Somno*, 1, 454, b, 14–455, a, 3, where it is said that all animals except ostracea are actually observed to sleep, and that, on the general grounds mentioned above, we must suppose that these sleep also.

[2] *Ibid.* ii. 455, b, 16–28, c. 3, end.

[3] *De Somno*, c. 3, where this point is very fully discussed.

[4] As is shown and interestingly illustrated by careful observations from cognate fields, *π. ἐνυπνίων* (see p. 71, n. 3, *supra*), cf. *Divin.*

in the body, which would not be perceived in waking hours, makes itself felt in dreams, or that dreams, reversely, impel people to subsequent action by the images which they present to the soul. It is also possible that sensible impressions reach us in sleep which would not have struck upon our senses in the more disturbed atmosphere of the daytime, or would have failed to arouse our attention. Thus some prophetic dreams may be explained naturally; anything beyond this must be considered a casual coincidence, for we notice that many dreams do not come true at all.[1]

Death, like sleep, must be explained by an alteration in the central organ. It happens when the vital warmth, which resides in the heart (or the correspond-

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p. S. 1, 463, a, 7 sqq. Dreams according to the account here given (c. 3, 462, a, 8, 29) are *κινήσεις φανταστικαὶ* [movements caused by fancy] *ἐν τοῖς αἰσθητηρίοις, . . . τὸ φάντασμα τὸ ἀπὸ τῆς κινήσεως τῶν αἰσθημάτων, ὅταν ἐν τῷ καθεύδειν ᾖ, ᾗ καθεύδει, τοῦτ' ἐστὶν ἐνύπνιον.*

[1] This is essentially the doctrine set forth in the treatise *π. τῆς καθ' ὕπνον μαντικῆς*. It cannot, on the other hand, be regarded as the expression of Aristotle's scientific conviction when in one of his Dialogues (see i. 390, n. 3, *supra*) he speaks of the soul in sleep and just before death, when about to withdraw from the body into its true being, as possessed of a power of insight into the future. Such a view, it is much more probable, does not at all express his own conviction, but merely an opinion which, he thinks, may have given rise to the belief in the existence of the Gods. If at the time of the composition of this dialogue he attributed any real value to this opinion, it would be only one of the many proofs of the influence which the views of Plato still exercised over him. His whole treatment of the subject as given above shows how far he was at a later time from regarding sleep as a higher condition of the spiritual life. The views that CIC. *Divin.* i. 38, 81 attributes to Aristotle on the power of prophetic foresight ('aliquid in animis præsagiens atque divinum') said to be possessed by hypochondriacs were much more probably taken from one of the Dialogues, than from *Divin. p. S.* c. 2 *init.* or *Eth. Eud.* vii. 14, 1248, a, 39.

ing member), is extinguished.[1] The cause of this extinction, which affects all fire alike, is generally the want of nourishment. This may be brought about in two ways: either the operation of antagonistic materials[2] may prevent the fire from maturing its aliment, which in the case of life is the vapour rising from the blood; or else an excess of warmth may induce too rapid consumption of it.[3] The latter takes place in the natural decay of old age. During a length of time the respiratory organs have been growing gradually harder and drier, moving themselves in consequence more slowly, and becoming incapable of providing the necessary covering process for the inner heart.[4] Accordingly the inner fire decreases more and more, until at last it is extinguished, like a little flame, by some insignificant movement.[5] The causes of greater or less longevity are discussed by Aristotle in a special treatise.[6]

Up to this point we have dealt exclusively with the common conditions and peculiarities of animal life. These common characteristics are displayed in the most different forms and degrees of completeness by the different races of animals. The animal kingdom exhibits

[1] *De Vita*, c. 4; see pp. 7 and 42, *supra*, and cf. *Respir.* 17, 478, b, 31 sqq. 479, a, 7 sqq.

[2] As in the extinction of fire by water.

[3] *De Vita*, c. 5, 496, b, sq. The third possible case, when the supply of the requisite aliment fails, as in death by starvation, is here unnoticed by Aristotle.

[4] That this is the purpose served by respiration has already been proved at p. 43.

[5] *De Respir.* 17, 479, a, 7 sqq. cf. *De Vita*, 5, 469, b, 21, 470, a, 5 (where the suffocation of fire by coals is cited as an illustration, and explained in the same way). *Meteor.* iv. 1, 379, a, 3; *Longit. V.* 5, 466, a, 19, 22, b, 14; *Gen. An.* v. 3, 783, b, 6.

[6] Περὶ μακρυβιότητος καὶ βραχυβιότητος: cf. *Gen. An.* iv. 10, 777, b, 3. Upon the results there arrived at, c. 5, 6, it is impracticable here to enter more fully.

a gradual and continuous progression from the poorest and most undeveloped forms of life to the highest, and it is Aristotle's undisputed distinction to have first discovered this scale and to have followed it through all aspects of animal life.[1] Even the local habitations of the different animals, the elements to which they belong, enable us to distinguish their several degrees of honour and importance.[2] Nor must the variations in their vital heat be neglected, as that is a point of the greatest moment in determining the perfection of animate existence.[1] Together with the vital heat must be mentioned the character of the blood and of the humours corresponding to it in other animals, on which depends the broad distinction between sanguineous and bloodless creatures.[2] The temper and intelligence of animals are regulated in a great measure by the constitution of their blood, while of course its influence over their physical structure is not less important.[3] It is only sanguineous animals which have flesh, the bloodless are

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[1] As has already been generally shown, p. 20 sqq. *supra*; cf. i. 466 sqq.

[2] Aristotle frequently touches upon this point. His statements upon it, however, are not always consistent with one another either in regard to the birth and habitations, or in regard to the elementary constitution of different living creatures. *Meteor.* iv. 4, 382, a, 6 (*De An.* i. 5, 411, a, 9 relates to another subject) he says: *ἐν γῇ καὶ ἐν ὕδατι ζῷα μόνον ἔστιν, ἐν ἀέρι δὲ καὶ πυρὶ οὐκ ἔστιν, ὅτι τῶν σωμάτων ὕλη ταῦτα.* (On the statement in the latter clause *v.* i. 483, n. 2, *supra*). On the other hand, according to CIC. *N. D.* ii. 15, 42; PLUT. *Plat. V.* 20, 1 (*Fr. Ar.* 19), he had declared, probably in the dialogue *π. φιλοσοφίας*, that as there are land-, water-, and air-animals (*ζῷα χερσαῖα, ἔνυδρα, πτηνὰ*, or according to Cic. 'cum aliorum animantium ortus in terra sit, aliorum in aqua, in aëre aliorum'), there must also be *ζῷα οὐράνια*, and the stars must therefore be animate. Again, *Hist. An.* v. 19, 552, b, 6-15, he speaks of worms which spring by spontaneous generation from ice, flies which spring from fire, whereas, *Gen. et Corr.* ii. 3, 330, b, 29, he had expressly denied that anything at all springs from either ice or fire. If we may put down to a popular mode of speech the mention of air-animals in the treatise *π. φιλοσοφίας*, by which are only meant winged animals, yet the fire-animals mentioned in his *Natural History* and alluded to by other writers (cf. FABRICIUS, on Sext. Pyrrh. i. 41. IDELER, on *Meteorol.* ii. 454; PHILO, *Plant. Noë*, 216, A, *De Gigant.* 285, A) cannot be reconciled with his other statements. But, secondly, with regard to the material constituents of living bodies, Aristotle holds (*De An.* i. 5, 411, a, 9. iii. 13 *init.*, and the passage referred to in i. 482, n. 3, *sup.*) that while each contains a mixture of all the elements, there may be a preponderance of different elements in different bodies. Here also, however, his statements are not always consistent. *De Respir.* 13, 477, a, 27, he says: *τὰ μὲν γὰρ ἐκ γῆς πλείονος γέγονεν, οἷον τὸ τῶν φυτῶν γένος* [and acc. to *Gen. An.* ii. 6. 743, b, 10, shell-fish and crustacea], *τὰ δ' ἐξ ὕδατος οἷον τὸ τῶν ἐνύδρων· τῶν δὲ πτηνῶν καὶ πεζῶν τὰ μὲν ἐξ ἀέρος τὰ δ' ἐκ πυρός. ἕκαστα δ' ἐν τοῖς οἰκείοις τόποις ἔχει τὴν τάξιν αὐτῶν.* On the other hand, *Gen. An.* iii. 11, 761, b, 13: *τὰ μὲν γὰρ φυτὰ θείη*

τις ἂν γῆς, ὕδατος δὲ τά ἔνυδρα, τὰ δὲ πεζὰ ἀέρος· τὸ δὲ μᾶλλον καὶ ἧττον καὶ ἐγγύτερον καὶ πορρώτερον πολλὴν ποιεῖ καὶ θαυμαστὴν διαφοράν. τὸ δὲ τέταρτον γένος οὐκ ἐπὶ τούτων τῶν τόπων δεῖ ζητεῖν· καίτοι βούλεταί γέ τι κατὰ τὴν τοῦ πυρὸς εἶναι τάξιν. . . ἀλλὰ δεῖ τὸ τοιοῦτον γένος ζητεῖν ἐπὶ τῆς σελήνης· αὕτη γὰρ φαίνεται κοινωνοῦσα τῆς τετάρτης ἀποστάσεως. The whole class of πεζὰ (land animals and birds) are here assigned to the air, just as *De Sensu*, c. 5, 444, a, 19, men and quadrupeds are classed with those ὅσα μετέχει μᾶλλον τῆς τοῦ ἄερος φύσεως: fire-animals on the other hand are said to inhabit the moon, of which there is a suggestion also *De An.* ii. 3, 414, b, 18 (see p. 20, n. 3, *supra*). But it remains to be asked how in the ethereal region, to which the moon also belongs, there can be beings constituted of all the elements. Cf. Meyer, *Arist. Thierk.* 413 sq 393, and i. 472 sqq. *supra*.

[1] *De Resp.* 13, 477, a, 16: τὰ τιμίωτερα τῶν ζῴων πλείονος τετύχηκε θερμότητος· ἅμα γὰρ ἀνάγκη καὶ ψυχῆς τετυχηκέναι τιμιωτέρας.

[2] On this distinction, of which Aristotle very frequently makes use, see, besides many other passages, *Hist. An.* i. 4–6, 489, a, 30, 490, a, 21, 26 sqq. b, 9. ii. 15 *init* iv. 1 *init.* c. 3 *init.*; *Part. An.* ii. 2, 648, a, 1. c. 4, 650, b, 30, and the passages referred to 26, n. 1, *supra*. From *Part.* iii. 4, 665, a, 31 (Δημόκριτος δ' ἔοικεν οὐ καλῶς διαλαβεῖν περὶ αὐτῶν, εἴπερ ᾠήθη διὰ μικρότητα τῶν ἀναίμων ζῴων ἄδηλα εἶναι ταῦτα = their intestines) Brandis, ii. b. 1301 concludes that Democritus had made the distinction between sanguineous and bloodless animals; the inference, however, is a doubtful one, as Democritus may have mentioned only particular species of animals, and the general designation of them as ἄναιμα may be Aristotle's.

[3] *Part. An.* ii. 2, 648, a, 2 (see p. 39, n. 6, *supra*); c. 4, 651, a, 12: πολλῶν δ' ἐστὶν αἰτία ἡ τοῦ αἵματος φύσις καὶ κατὰ τὸ ἦθος τοῖς ζῴοις καὶ κατὰ τὴν αἴσθησιν, εὐλόγως· ὕλη γάρ ἐστι παντὸς τοῦ σώματος.

provided with something analogous to flesh;[1] the former have a heart, the latter another kind of central organ.[2] The vital heat and composition of the blood, again, determine the development of the organs of refrigeration and secretion—the brain, lungs, kidneys, bladder, and their peculiar functions.[3] In everything relating to the motion and posture of animals, Aristotle does not fail to recognise a special significance. Some tribes grow like plants adhering to the ground: the more perfect races, on the contrary, are capable of locomotion at will.[4] Furthermore, he traces very considerable differences in the organs of motion and the modes of progression displayed by the latter.[5] It is only in the case of locomotive creatures that we find the opposition of right and left, to which Aristotle attributed much importance,[6] together with a more complex organisation.[7] Lastly, while in shell-fish and plants the head looks downwards, and while in animals without feet or with many feet it is turned to the middle of the world, it is turned upwards in bipeds, and particularly in man.[8]

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[1] See p. 26, n. 2, *supra*.

[2] See p. 26, n. 1; p. 41, n. 3, *sup*.

[3] See p. 26, n. 8; p. 40, n. 1, and p. 43, n. 6, *supra*.

[4] *Hist. An.* viii. 1, 588, b, 10 sqq.; *Part. An.* iv. 5, 681, a, 12–20; *Ingr. An.* 19; *De An.* ii. 3, 415, a, 6, and p. 49, n. 5, *supra*.

[5] Even birds seem stunted (*κεκολόβωται*) in this respect, but fish even more so (*Part. An.* iv. 13 *init.*); in the motion of serpents and worms there is properly no distinction of right and left (*Ingr. An.* 4, 705, b, 22 sqq.); in the case of insects the multitude of their feet indicates deficient unity and centralisation of the vital force (*ibid.* c. 7), while—in common with some birds—they have little power of steering their flight (*ibid.* 10, 710, a, 4).

[6] See p. 33, n. 3, *sup.*, and *Ingr. An.* 4, 705, b, 13 to end. Aristotle there remarks (706, a, 18) that the distinction between right and left reaches its highest development in man, *διὰ τὸ κατὰ φύσιν μάλιστα ἔχειν τῶν ζῴων. φύσει δὲ βέλτιόν τε τὸ δεξιὸν τοῦ ἀριστεροῦ καὶ κεχωρισμένον.*

[7] *Part. An.* iv. 7 *init.*

[8] *Part. An.* iv. 7, 683, b, 18; *Ingr. An.* c. 5; *De Vita*, 1, 468,

The structure of the body and the relation of its members correspond to these differences of posture.[1] In human beings the upper portion of the body is lighter than the lower, for the sake of their intellectual activity, and because of their greater warmth. In quadrupeds the size and weight of these parts are greater. As the vital heat decreases, and the earthly ingredients begin to preponderate, the number of the feet is multiplied, until at last they disappear, and the whole body becomes one great foot. Beyond this point the head begins to turn downwards, sensation disappears, the animal becomes a vegetable.[2] The size of animals, again,

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a, 5. Man's upright posture is explained, *Respir*. 13, 477, a, 20, as the result of the purity and abundance of his blood; *Part An.* ii. 7, 653, a, 30, iii. 6, 669, b, 4, it is accounted for by the cognate fact of his higher temperature, heat having the effect of raising the body, as is proved by the fact that warm-blooded quadrupeds (the *ζῳοτόκα*) are the more upright. *Part. An.* iv. 10, 686, a, 25, the argument is put teleologically: man has arms instead of forefeet, *ὀρθὸν μὲν γάρ ἐστι μόνον τῶν ζῴων διὰ τὸ τὴν φύσιν αὐτοῦ καὶ τὴν οὐσίαν εἶναι θείαν· ἔργον δὲ τοῦ θειοτάτου τὸ νοεῖν καὶ φρονεῖν· τοῦτο δ' οὐ ῥᾴδιον πολλοῦ τοῦ ἄνωθεν ἐπικειμένου σώματος· τὸ γὰρ βάρος δυσκίνητον ποιεῖ τὴν διάνοιαν καὶ τὴν κοινὴν αἴσθησιν*. The increased weight of the upper portions of the body requires that it should be placed horizontally on several legs, *οὐ δυναμένης φέρειν τὸ βάρος τῆς ψυχῆς. πάντα γάρ ἐστι τὰ ζῷα νανώδη τἆλλα παρὰ τὸν ἄνθρωπον· νανῶδες γάρ ἐστιν οὗ τὸ μὲν ἄνω μέγα τὸ δὲ φέρον τὸ βάρος καὶ πεζεῦον μικρόν* &c. [cf. i. 467, n. 2, *supra*] *. . . διὸ καὶ ἀφρονέστερα πάντα τὰ ζῷα τῶν ἀνθρώπων ἐστίν. . . . αἴτιον δ' . . . ὅτι ἡ τῆς ψυχῆς ἀρχὴ πολλῷ δὴ δυσκίνητός ἐστι καὶ σωματώδης. ἔτι δ' ἐλάττονος γενομένης τῆς αἰρούσης θερμότητος καὶ τοῦ γεώδους πλείονος, τά τε σώματα ἐλάττονα τῶν ζῴων ἐστὶ καὶ πολύποδα, τέλος δ' ἄποδα γίγνεται καὶ τεταμένα πρὸς τὴν γῆν. μικρὸν δ' οὕτω προβαίνοντα καὶ τὴν ἀρχὴν ἔχουσι κάτω καὶ τὸ κατὰ τὴν κεφαλὴν μόριον τέλος ἀκίνητόν ἐστι καὶ ἀναίσθητον, καὶ γίνεται φυτόν.*

[1] *Ingr. An.* c. 11: since man is a biped and designed for an upright walk, the upper parts of his body must be lighter, the lower heavier. Birds cannot have the upright posture; man on account of this posture cannot have wings (for the reason given for this, the student must consult Aristotle himself). Cf. prev. n. and *Hist. An.* ii. 4, 500, b, 26.

[2] *Part. An.* iv. 10; see p. 81, n. 8, *supra*.

corresponds to their place in the scale of existence: the warmer animals, according to Aristotle's notion, are generally speaking greater, and therefore the sanguineous animals are larger than the bloodless, although he does not fail to notice several exceptions to this rule.[1] Another obvious basis of classification may be found in the mode of birth and propagation. Some animals are viviparous, and form their offspring in the womb, either with or without the intervention of an egg.[2] A second class lay eggs, perfect in the case of birds, oviparous quadrupeds, and snakes; imperfect in the case of fishes, molluscs, and molluscous ostracea. A third kind propagate themselves by worms, produced sometimes with, sometimes without, copulation,[3] and attaining their ultimate form only after repeated transformation: almost all insects belong to this class. A fourth series spring by spontaneous generation from slime or from the excretions of animals: as, for instance, the majority of shellfish and some fishes and insects.[4] The common fundamental type of all these different modes of propagation is development from worms through eggs to organic form;[5] but this process runs a different course, producing a more or less perfect result, according to the higher or the lower status of the animal. So, since the warmer and less earthy animals are the noblest, we may say that birth and development follow the warmth and material composition of the organisms.[1] The mode of their birth reflects the perfection or imperfection of their nature, and if we estimate the whole animal kingdom by this one standard, we obtain a scale which leads gradually from the most perfect down to the least perfect.[2] Nor are the senses equally distributed among

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[1] *Respir.* 13, 477, a, 18; *Longit. V.* 5, 466, b, 18, 28; *Part. An.* iv. 10, 686, b, 28; *Hist. An.* i. 5, 490, a, 21 sqq.; *Gen. An.* ii. 1, 732, a, 16 sqq.

[2] The former is the case (*Gen. An.* ii. 1, 732, a, 32, i. 10, and elsewhere) with man, horses, cattle, dolphins, &c., the latter with cartilaginous fish and vipers.

[3] Instances of monogenesis Aristotle finds in bees and some fishes; *Gen. An.* iii. 10 (see p. 58, n. 1, *supra*), c. 5, 755, b, 20, ii. 5 (see p. 53, n. 1, *supra*); *Hist. An.* iv. 11, 538, a, 19.

[4] *Gen. An.* ii. 1, from 732, a, 25 onwards; *Hist. An.* i. 5, 489, a, 34–b, 18; *Polit.* i. 8, 1256, b, 10 sqq. On viviparous animals see especially *Gen. An.* ii. 4 sqq.; on the others and on spontaneous generation, the passage cited p. 58, n 1, and p. 49, n. 4, *sup.*, and also MEYER, *Arist. Thierk.* 453 sqq.

[5] On the one hand, he holds

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that the embryo even of oviparous and viviparous animals is vermicular at first, and, on the other, the chrysalisation of insects which appear first as worms is a transformation into the form of an egg; so that even here the law of analogy does not desert us; *Gen. An.* iii. 9, 758, a, 32: *σχεδὸν γὰρ ἔοικε πάντα σκωληκοτοκεῖν πρῶτον· τὸ γὰρ ἀτελέστατον κύημα τοιοῦτόν ἐστιν. ἐν πᾶσι δὲ καὶ τοῖς ζῳοτοκοῦσι καὶ τοῖς ᾠοτοκοῦσι τέλειον ᾠὸν τὸ κύημα τὸ πρῶτον ἀδιόριστον ὂν λαμβάνει τὴν αὔξησιν· τοιαύτη δ' ἐστὶν ἡ τοῦ σκώληκος φύσις. μετὰ δὲ τοῦτο τὰ μὲν ᾠοτοκεῖ τὸ κύημα τέλειον τὰ δ' ἀτελὲς, ἔξω δὲ γίγνεται τέλειον, καθάπερ ἐπὶ τῶν ἰχθύων εἴρηται πολλάκις. τὰ δ' ἐν αὑτοῖς ζῳοτοκοῦντα τρόπον τινὰ μετὰ τὸ σύστημα τὸ ἐξ ἀρχῆς ᾠοειδὲς γίνεται· περιέχεται γὰρ τὸ ὑγρὸν ὑμένι λεπτῷ, καθάπερ ἂν εἴ τις ἀφέλοι τὸ τῶν ᾠῶν ὄστρακον.* (Cf. on this point *Hist. An.* viii. 7.) The insect germ is a worm, whether it is born by ordinary or by spontaneous generation, and the same is true of caterpillars and of the supposed spiders' eggs. *προελθόντα δὲ πάντα τὰ σκωληκώδη καὶ τοῦ μεγέθους λαβόντα τέλος οἷον ᾠὸν γίγνεται* [in chrysalisation] . . . *τούτου δ' αἴτιον ὅτι ἡ φύσις ὡσπερανεὶ πρὸ ὥρας ᾠοτοκεῖ διὰ τὴν ἀτέλειαν τὴν αὑτῆς, ὡς ὄντος τοῦ σκώληκος ἔτι ἐν αὐξήσει ᾠοῦ μαλακοῦ.* The same is the case with moths and similar animals. Cf. n. 2, *infra.*

[1] *Gen. An.* ii. 1, 732, b, 28: *ζῳοτοκεῖ μὲν τὰ τελεώτερα τὴν φύσιν τῶν ζῴων καὶ μετέχοντα καθαρωτέρας ἀρχῆς· οὐθὲν γὰρ ζῳοτοκεῖ ἐν αὑτῷ, μὴ δεχόμενον τὸ πνεῦμα καὶ ἀναπνέον. τελεώτερα δὲ τὰ θερμότερα τὴν φύσιν καὶ ὑγρότερα καὶ μὴ γεώδη· τῆς δὲ θερμότητος τῆς φυσικῆς ὅρος ὁ πλεύμων ὅσων ἔναιμός ἐστιν . . . ὥσπερ δὲ τὸ ζῷον τέλεον, ὁ δὲ σκώληξ καὶ τὸ ᾠὸν ἀτελὲς, οὕτως τὸ τέλειον ἐκ τοῦ τελειοτέρου γίνεσθαι πέφυκεν.* Warmth and moisture are favourable, cold and dryness hostile to perfect development; Aristotle tries to show, 733, a, 3 sqq., how the various methods of production depend upon the various ways in which these are distributed and combined.

[2] *Ibid.* 733, a, 32: *δεῖ δὲ νοῆσαι ὡς εὖ καὶ ἐφεξῆς τὴν γένεσιν ἀποδίδωσιν ἡ φύσις. τὰ μὲν γὰρ τελεώτερα καὶ θερμότερα τῶν ζῴων*

the different tribes: it is only the more perfect which possess all the five senses, while the others partake of them in more or less completeness.[1] Again, there are only a few animals in which memory and imagination are developed from sensation; and accordingly they differ widely in intelligence and docility.[2] In the last place, Aristotle turns his attention to the habits and character of animals, and is at pains to point out the characteristics which establish a closer or more distant resemblance between the life of men and brutes,[3] noticing especially, for instance, how in the sexual life of animals and their treatment of their young we have all stages, from a merely vegetable indifference up to a species of moral conduct towards offspring.[4]

Aristotle failed to combine these different points of view in such a way as to establish a complete and graduated classification of the whole animal kingdom: nor, indeed, did he succeed in avoiding constant errors and contradictions in his treatment of this subject, owing to the complicated and crossing principles of

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τέλειον ἀποδίδωσι τὸ τέκνον κατὰ τὸ ποιὸν [i.e. with perfectly developed organs] . . . . καὶ γεννᾷ δὴ ταῦτα ζῷα ἐν αὑτοῖς εὐθύς. τὰ δὲ δεύτερα ἐν αὑτοῖς μὲν οὐ γεννᾷ τέλεια εὐθὺς (ζῳοτοκεῖ δὲ ᾠοτοκήσαντα πρῶτον), θύραζε δὲ ζῳοτοκεῖ. τὰ δὲ ζῷον μὲν οὐ τέλειον γεννᾷ, ᾠὸν δὲ γεννᾷ καὶ τοῦτο τέλειον τὸ ᾠόν. τὰ δ' ἔτι τούτων ψυχροτέραν ἔχοντα τὴν φύσιν ᾠὸν μὲν γεννᾷ οὐ τέλειον δὲ ᾠόν, ἀλλ' ἔξω τελειοῦται, καθάπερ τὸ τῶν λεπιδωτῶν ἰχθύων γένος καὶ τὰ μαλακόστρακα καὶ τὰ μαλάκια. τὸ δὲ πέμπτον γένος καὶ ψυχρότατον οὐδ' ᾠοτοκεῖ ἐξ αὑτοῦ, ἀλλὰ καὶ τοῦ [τὸ] τοιοῦτον ἔξω συμβαίνει πάθος αὐτῷ, ὥσπερ εἴρηται τὰ γὰρ ἔντομα σκωληκοτοκεῖ τὸ πρῶτον· προελθὼν δ' ᾠώδης γίνεται ὁ σκώληξ (ἡ γὰρ χρυσαλλὶς καλουμένη δύναμιν ᾠοῦ ἔχει). εἶτ' ἐκ τούτου γίνεται ζῷον ἐν τῇ τρίτῃ μεταβολῇ λαβὸν τὸ τῆς γενέσεως τέλος.

[1] *Hist. An.* iv. 8; *De An.* ii. 2, 415, a, 3; *De Somno*, 2, 455, a, 5, and p. 64, *supra*.

[2] See the passages referred to *supra*, p. 70, n. 4, and p. 38, n. 1.

[3] See p. 38, n. 1, *supra*.

[4] *Hist. An.* viii. 1, 588, b, 28, cf. *Oecon.* i. 3, 1343, b, 13.

division which he followed.[1] He generally divides the brute creation into nine departments, between which some transitional forms intervene: these are viviparous quadrupeds, oviparous quadrupeds, birds, fishes, whales, molluscs, malacostraca, testacea, and insects.[2] Close to the oviparous quadrupeds are placed the snakes, although in several points they resemble fishes.[3] A more general law of classification is his opposition between sanguineous and bloodless animals. To the former belong the first five classes of those we have enumerated; to the latter, the remaining four.[4] But though this opposition has so broad an application,[5] and though Aristotle uses it as an essential distinction,[6] he does not divide the whole animal kingdom into the two classes of sanguineous and bloodless, and then subdivide these into species as viviparous, &c.[7] His other systems of classification are employed with even less rigour, as when he speaks of land- and water-animals,[1] of viviparous, oviparous, and vermiparous,[2] of locomotive and non-locomotive,[3] of two-footed, four-footed, many-footed, and footless,[4] of walking, flying, swimming creatures,[5] of carnivora and herbivora, and so on.[6] Nor does Aristotle, in tracing the subordinate species into which the *summa genera* are divided, make use of these distinctions for the purpose of classification. He rather tries to find the natural divisions by observation,[7] and if he cannot succeed in marking off the species by these means, he does not hesitate to assume intermediate races belonging partly to the one sort and partly to the other.[8] Lastly,

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[1] With the following account cf. MEYER, *Arist. Thierk.* 485 sqq.

[2] *Hist. An.* i. 6, ii. 15 *init.* iv. 1 *init.*, *Part. An.* iv. 5 *init.*, among other passages. Cf. MEYER, *ibid.* 102 sqq. 151 sqq., *ibid.* 71 sqq., but especially 84 sqq., upon Aristotle's objections to dichotomy and to other artificial classifications.

[3] See, on the one hand, *Part. An.* iv. 1 *init.*, *Hist. An.* ii. 17, 508, a, 8, among other passages, and, on the other, *Hist. An.* iii. 7, 516, b, 20, *ibid.* c. 1, 509, b, 15, v. 5, 540, b, 30; *Gen. An.* i. 3, 716, b, 16; *Part.* iv. 13, 697, a, 9. MEYER, *ibid.* 154 sq.

[4] See the passages cited, p. 80, n. 2, *supra.*

[5] See p. 80, *supra.*

[6] *Hist. An.* ii. 15, 505, b, 26: *τούτῳ γὰρ διαφέρει τὰ μέγιστα γένη πρὸς τὰ λοιπὰ τῶν ἄλλων ζῴων, τῷ τὰ μὲν ἔναιμα τὰ δ' ἄναιμα εἶναι.* *Part.* iv. 3, 678, a, 33: *ὅτι γάρ ἐστι τὰ μὲν ἔναιμα τὰ δ' ἄναιμα ἐν τῷ λόγῳ ἐνυπάρξει τῷ ὁρίζοντι τὴν οὐσίαν αὐτῶν.* Cf. BRANDIS, ii. b, 1294 sq.

[7] Cf. MEYER, *ibid.* 138 sq. In *Part. An.* i. 2 sq. Aristotle sets forth in detail the reasons why he regards it as inadmissible to base his classification upon such a division (see i. 241, n. 3, *supra*, and cf. i. 271, n. 2, *sup.*), expressly stating, 642, b, 30: *χαλεπὸν μὲν οὖν διαλαβεῖν καὶ εἰς τοιαύτας διαφορὰς ὧν ἔστιν εἴδη ὥσθ' ὁτιοῦν ζῷον ἐν ταύταις ὑπάρχειν καὶ μὴ ἐν πλείοσι ταὐτόν . . . πάντων δὲ χαλεπώτατον ἢ ἀδύνατον εἰς τὰ ἄναιμα* (no other word could have been used consistently with the context which follows). This characteristic is

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unsuitable for the *differentia* of a *summa species*, if for no other reason than because it is a negative one, and negative conceptions cannot be further subdivided according to any inlying principle of classification (642, b, 21, 643, a, 1 sqq. b, 9–26).

[1] *Hist. An.* i. 487, a, 34, viii. 2 *init.* ix. 48, 631, a, 21, ii. 2, 648, a, 25, among other passages; cf. *Part.* i. 2, 642, b, 10 sqq.; *Top.* vi. 6, 144, b, 32 sqq.; MEYER, 84 sq. 140. See also p. 79, n. 2, *supra*.

[2] *Hist. An.* i. 5, 489, a, 34, among other passages; see MEYER, 97 sq. 141 sq., and p. 82 sq. *supra*, according to which as a fourth class we should have self-generated animals.

[3] *Ingr. An.* 4. 705, b, 13; *Part. An.* iv. 5, 681, b, 33 sqq. c. 7 *init.*

[4] *Hist. An.* i. 4, 489, b, 19; *Part. An.* iv. 10, 687, a, 2, 689, b, 31 sqq.; *Ingr. An.* 1, 704, a, 12. c. 5, 706, a, 26 sqq., b, 3 sqq.

[5] Νευστικὰ and πτηνὰ are represented, *Hist. An.* i. 5, 489, b, 23, 490, a, 5, as separate classes, the latter being subdivided into πτερωτὰ, πιλωτὰ and δερμόπτερα; opposed to these we have as a third class all those which move upon the earth.

[6] *Hist. An.* i. 1, 488, a, 14, viii. 3, 592, a, 29, b, 15, 28; *Polit.* i. 8, 1256, a, 24, among other passages; *v.* MEYER, p. 100.

[7] MEYER, *ibid.* p. 158–329, gives an exhaustive account of these.

[8] Such transitional forms are: the monkey standing between man and viviparous quadrupeds; the bat between flying and walking animals, but properly with as much claim to be reckoned among viviparous quadrupeds as the seal, which is assigned a place between land- and water- animals; the ostrich, which, although a bird, in many points resembles a quadruped; the crocodile, which is an oviparous quadruped approximating to a

though it cannot be denied that Aristotle's system represents a gradual progression toward completeness in the animal creation which attains its summit in man,[1] yet the respective dignities of whole classes are left undetermined, and the different points of view from which he judges them intersect each other so awkwardly that the same class often ranks higher in one respect and lower in another. Zoophytes, generally speaking, are less perfect than true animals; shell-fish are less perfect than locomotive creatures, the footless than those which are provided with feet, the vermiparous than the oviparous, and these than the viviparous; all animals than man.[2] But whether insects rank above molluscs and malacostraca, birds above amphibious animals, fishes above snakes, or *vice versa*, Aristotle does not enable us to decide. We may even doubt[3] about the respective positions of shell-fish and insects. Again, though sanguineous animals are the nobler on account of their greater vital warmth and their more complex organisation, still some insects, like bees and ants, are superior to many of them in intelligence and art.[4] If birds as oviparous animals rank below mammals, their posture approximates them to man;[5] it seems strange, therefore, that they should be more remote from mankind in

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fish; serpents (see p. 86, n. 8, *supra*); among bloodless animals the nautilus and the hermit crab are molluscs which are related to crustacea. See the references given by MEYER, pp. 146–158. The zoological position of man is discussed *infra*, p. 90, n. 1.

[1] See p. 25 sqq. *supra*; p. 28, n. 3, among other passages.

[2] See i. 487 sq. *supra*.

[3] As MEYER, p. 486, shows.

[4] *Part. An.* ii. 2, 648, a, 4 sqq.; see p. 39, n. 6, *supra*, where a solution of the difficulty is suggested, which, however, is hardly an adequate one.

[5] *Ingr. An.* 5, 706, a, 25, b, 3; *Hist. An.* i. 5, 489, b, 20.

mode of birth and physical structure than the mammals.[1] When we take the spontaneous generation of sexless animals as a sign of a low rank, intermediate between the vegetable and animal worlds, we are surprised to find the same mode of propagation not only in insects but even in fishes.[2] On the other hand, since viviparous animals are the most perfect,[3] whales and dolphins, as well as skates and vipers, take precedence of birds and amphibious animals, though inferior to them in many respects.[4] If we explain the transition from quadrupeds to multipeds, and from these to footless creatures by a continual declension of warmth,[5] the bloodless insects ought to be warmer than the sanguineous snakes, fishes, and dolphins.[6] It cannot be denied that the complex variety of the facts cannot always be harmonised with the presuppositions of the system, and that it is impossible to avoid disproportion and even contradictions in its application. The majority of these defects appear to have escaped Aristotle's notice; others he tries to avoid by artificial means:[7] but he never allows himself to be shaken in his great conviction that organic nature presents a graduated scale of progressive development towards perfection.

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[1] Since an upright posture is said to accompany greater vital heat; see p. 81 sq. *supra.*

[2] See p. 82 sq. *sup.*, cf. p. 48 sq.

[3] *Gen. An.* ii. 4, 737, b, 26. Cf. p. 83, n. 2. *supra.*

[4] In the case of cartilaginous fish and vipers this requires no proof; in the case of cetaceans their want of feet at least, and as compared with birds the position of their heads, are in Aristotle's view important defects.

[5] See p. 81, *supra.*

[6] Cf. MEYER, p. 487 sq. where further examples are given.

[7] See also *Gen. An.* i. 10 sq. where the viviparousness of sharks is explained on the ground of their natural coldness, whereas the same property in mammals is made to depend upon their greater heat and perfection; cf. *Part. An.* iii. 6, 669, a, 24 sqq.; *Gen. An.* ii. 4, 737, b, 26, and other passages.

CHAPTER XI

CONTINUATION

Man

THE end of this evolution is Man. His body unites him with the lower animals, and especially with the class of viviparous land-animals.[1] But already even in the characteristics of his physical organism we have evidences of something higher, which raises him far above the lower animals. His body is of a warmer temperature than theirs. He has therefore more blood in proportion and a larger brain.[1] In him alone, as the greater heat and nobility of his nature demands, we have true symmetry of form and the upright posture which corresponds with it.[2] In man the distinction between the right and the left is most fully developed.[3] As his blood is the purest,[4] his sensibility is most delicate, his powers of perception the most refined, and his understanding the keenest.[5] His mouth, his windpipe, his lips, and his tongue add to their other functions that of speech, which marks him out from all living things.[6] Nature has not confined man, as she has the other animals, to one means of defence. His means of self-preservation are infinite, and can be adapted to suit his changing needs.[7] His hand is the tool of all

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[1] It might be doubted whether man is classed by Aristotle with viviparous quadrupeds or placed in a class by himself. Thus, *Hist. An.* i. 6, 490, b, 15 sqq., those γένη which have no subordinate species under them are compared to the genus ἄνθρωπος; on the other hand, *ibid.* ii. 8 *init.*, man is opposed to the τετράποδα, and the monkey is described as an intermediate form between them. This apparent contradiction is due to the fact that Aristotle has no name for the whole class: as a biped, man cannot be classed along with τετράποδα ζῳοτοκοῦντα; on the other hand, ζῳοτοκοῦντα would embrace the whole which he declares to be a separate γένος. In reality man is treated as a species of the same genus to which viviparous quadrupeds belong. This is unmistakably the intention in *Hist. An.* i. 6, 490, b, 31 sqq., where he is described along with the lion, the stag, &c., as an εἶδος τοῦ γένους τοῦ τῶν τετραπόδων ζῴων καὶ ζῳοτόκων, and as one which has no subordinate species under it; *Part.* i. 5, 645, b, 24, where ὄρνις is adduced as an example of a γένος, ἄνθρωπος of an εἶδος; *Hist. An.* ii. 15, 505, b, 28, where the first class of sanguineous animals is described comprehensively as ἄνθρωπός τε καὶ τὰ ζῳοτόκα τῶν τετραπόδων; *ibid.* vi. 18 *init.*: περὶ μὲν οὖν τῶν ἄλλων ζῴων . . . σχεδὸν εἴρηται περὶ πάντων . . . περὶ δὲ τῶν πεζῶν ὅσα ζῳοτοκεῖ καὶ περὶ ἀνθρώπου λεκτέον τὰ συμβαίνοντα. *Gen. An.* i. 8, 738, a, 37: οὔτε γὰρ τὰ ζῳοτοκοῦντα ὁμοίως ἔχει πάντα [sc. τὰς ὑστέρας], ἀλλ' ἄνθρωποι μὲν καὶ τὰ πεζὰ πάντα κάτω . . . τὰ δὲ σελάχη ζῳοτοκοῦντα ἄνω. *Ibid.* ii. 4, 737, b, 26: τὰ ζῳοτοκοῦντα καὶ τούτων ἄνθρωπος. A certain distinction between man and other viviparous land-animals is doubtless referred to in these and other passages (e.g. *Part. An.* ii. 17, 660, a, 17), but Aristotle does not seem to have re-

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garded it as sufficiently fundamental to constitute man a separate γένος.

[1] *Part. An.* ii. 7, 653, a, 27–37, iii. 6, 669, b, 4, iv. 10 (see p. 81, n. 8, *supra*); *Respir.* 13, 477, a, 20. Upon this depends also length of life (in which respect man is held to be excelled only by the elephant) in so far as this depends in turn upon the correspondence between the composition of the body and the surrounding atmosphere, and especially upon the heat of its upper portions; *Gen. An.* iv. 10, 777, b, 3 sqq.; *Longit. Vit.* c. 5, 6, 466, a, 30 sqq. b, 14, 467, a, 31.

[2] Besides the passages already referred to, cf. *Ingr. An.* 5, 706, b, 3, 9, c. 11, 710, b, 5–17; *De Vita*, 1, 468, a, 5, and i. 467, n. 3, *supra*.

[3] *Ingr. An.* 4, 706, a, 18; see p. 81, n. 6, *supra*.

[4] *Respir.* 13, 477, a, 20.

[5] See p. 64, n. 6, and p. 11, n. 4, *supra*.

[6] *Part.* ii. 16, 659, a, 30 sqq. c. 17, 660, a, 17 sqq. iii. 1, 662, a, 20, 25; *Gen.* v. 7, 786, b, 19; *Hist. An.* iv. 9, 536, a, 32.

[7] *Part. An.* iv. 10, 687, a, 23, in the celebrated passage upon the human hand, after the words quoted, p. 11, n. 2, *supra*, Aristotle says: ἀλλ' οἱ λέγοντες ὡς συνέστηκεν οὐ καλῶς ὁ ἄνθρωπος ἀλλὰ χείριστα τῶν ζῴων [because he is naked and defenceless; Aristotle has

tools, so ingeniously contrived for the most widely different purposes that it takes the place of every other.[1] In a word, man is the first and most perfect of all living creatures.[2] And for this reason, just as each less perfect thing finds its end in that which is more perfect,[3] so all lower forms of animal life are destined for the use of man.[4]

It is in the soul of man, however, that this perfection has its proper seat. Even his physical superiority has only been vouchsafed to him because his body has to serve as the instrument of a nobler soul.[5] While the other animals are confined to the lower operations of the nutritive and sensitive life, man rises above them all by virtue of his faculty of thought.[6] Nutrition,

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probably in view PLATO'S *Protagoras*, 21, C] οὐκ ὀρθῶς λέγουσιν. τὰ μὲν γὰρ ἄλλα μίαν ἔχει βοήθειαν, καὶ μεταβάλλεσθαι ἀντὶ ταύτης ἑτέραν οὐκ ἔστιν, ἀλλ' ἀναγκαῖον ὥσπερ ὑποδεδεμένον ἀεὶ καθεύδειν καὶ πάντα πράττειν, καὶ τὴν περὶ τὸ σῶμα ἀλεώραν μηδέποτε καταθέσθαι, μηδέ μεταβάλλεσθαι ὃ δὴ ἐτύγχανεν ὅπλον ἔχων. τῷ δὲ ἀνθρώπῳ τάς τε βοηθείας πολλὰς ἔχειν καὶ ταύτας ἀεὶ ἔξεστι μεταβάλλειν, ἔτι δ' ὅπλον οἷον ἂν βούληται καὶ ὅπου ἂν βούληται ἔχειν.

[1] See the further account in the passage just quoted, and p. 19, n. 1; also *De An.* iii. 8, 432, a, 1, where the hand is called ὄργανον ὀργάνων.

[2] *Hist. An.* ix. 1, 608, b, 5: the ethical characteristics of the sexes are more prominent ἐν τοῖς ἔχουσι μᾶλλον ἦθος καὶ μάλιστα ἐν ἀνθρώπῳ· τοῦτο [sc. τὸ ζῷον] γὰρ ἔχει τὴν φυσιν ἀποτετελεσμένην. *Gen. An.* ii. 4, 737, b, 26: ἔστι δὲ τὰ τέλεια ζῷα πρῶτα, τοιαῦτα δὲ τὰ ζῳοτοκοῦντα, καὶ τούτων ἄνθρωπος πρῶτον.

[3] Cf. p. 28.

[4] *Polit.* i. 8, 1256, b, 15: Nature has provided that every creature should meet with its necessary food when it comes into the world; ὥστε ὁμοίως δῆλον ὅτι καὶ γενομένοις οἰητέον τά τε φυτὰ τῶν ζῴων ἕνεκεν εἶναι καὶ τἆλλα ζῷα τῶν ἀνθρώπων χάριν, τὰ μὲν ἥμερα καὶ διὰ τὴν χρῆσιν καὶ διὰ τὴν τροφὴν, τῶν δ' ἀγρίων, εἰ μὴ πάντα, ἀλλὰ τά γε πλεῖστα τῆς τροφῆς καὶ ἄλλης βοηθείας ἕνεκεν, ἵνα καὶ ἐσθὴς καὶ ἄλλα ὄργανα γίνηται ἐξ αὐτῶν. εἰ οὖν ἡ φύσις μηθὲν μήτε ἀτελὲς [without reason] ποιεῖ μήτε μάτην, ἀναγκαῖον τῶν ἀνθρώπων ἕνεκεν αὐτὰ πάντα πεποιηκέναι τὴν φύσιν.

[5] See p. 10 sq. *supra.*

[6] See p. 22 sq. *supra.*

propagation, the alternations of sleep and waking, birth, old age, death, sense-perception, even imagination and memory, are common to man and beast alike;[1] nor do these phenomena as they exhibit themselves in each differ essentially from one another.[2] And the same is true of the feelings of pleasure and displeasure and the desires that spring from them.[3] That which belongs to man alone of all known creatures is Mind or Reason (Νοῦς).[4] By 'Nous' Aristotle means the power of Thought in its widest acceptation,[5] but also more specifically the faculty of thought in so far as it deals with supersensible reality,[6] and especially the faculty of grasping in an immediate act of consciousness that which cannot be the object of mediated knowledge.[1] This part of the soul cannot be entangled in the life of the body. It must be simple, changeless, impassible.[2]

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[1] Voluntary recollection alone is beyond their power; cf. p. 73 sq.

[2] On these points, therefore, we have simply to refer to the previous chapter.

[3] See p. 22, n. 1, *supra*.

[4] Aristotle, like Plato, distinguishes for this reason between the rational and the irrational part of the soul; *Eth.* i. 13, 1102, a, 26 sqq.; *Polit.* vii. 15, 1334, b, 17, and *passim*.

[5] *De An.* iii. 4, 429, a, 23: λέγω δὲ νοῦν ᾧ διανοεῖται καὶ ὑπολαμβάνει ἡ ψυχή.

[6] After explaining, *De An.* iii. 4, 429, b, 10 sq., the distinction between the concrete thing with its ingredient of matter and the pure unadulterated form, Aristotle continues, l. 12: τὸ σαρκὶ εἶναι καὶ σάρκα ἢ ἄλλῳ ἢ ἄλλως ἔχοντι κρίνει . . . τῷ μὲν οὖν αἰσθητικῷ τὸ θερμὸν καὶ τὸ ψυχρὸν κρίνει καὶ ὧν λόγος τις ἡ σάρξ· ἄλλῳ δὲ ἤτοι χωριστῷ, ἢ ὡς ἡ κεκλασμένη ἔχει πρὸς αὑτὴν ὅταν ἐκταθῇ, τὸ σαρκὶ εἶναι [the pure conception of the σὰρξ] κρίνει. The same is true of all abstract conceptions: ἑτέρῳ ἄρα ἢ ἑτέρως ἔχοντι κρίνει. καὶ ὅλως ἄρα ὡς χωριστὰ τὰ πράγματα τῆς ὕλης, οὕτω καὶ τὰ περὶ τὸν νοῦν. The subject of κρίνει is νοῦς, as is shown by the preceding context. It may, indeed, seem strange that it is said of it that it knows (for we must give this more general signification to κρίνειν here, as in *De An.* iii. 3, 428, a, 2) heat and cold and the sensible qualities of things in general τῷ αἰσθητικῷ (where not only is it not necessary on account of the context to read αἰσθητῷ with BRENTANO, *Psychol. d. Ar.* 134, but it is not admissible). But while the simple perception of the data of sense belongs to αἴσθησις, and not to νοῦς, yet every judgment relating to them is shared in by thought (νοῦς in the wider sense) (cf. i. 209, n. 3, and 211, n. 1, *sup.*), and to this extent reason also may be described as that which by means of the perceptive faculty knows sensible things. Conceptions, on the other hand, as such, universal thoughts limited to no individual experi-

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ence are known by reason *per se*, although the material for them is supplied by sense-perception (as in the case of the conception of *σάρξ*). Instead of saying this simply, Aristotle expresses himself in such a way as to leave it ambiguous whether these are recognised by a faculty different from that by which sensible objects are recognised or by the same faculty acting in a different way. If we had here a dilemma between the two terms of which we had to decide, we could only say, as Aristotle does, that they are known *ἄλλῳ* (*νοῦς* being another faculty) than by *τὸ αἰσθητικόν*. But the statement of *three* alternatives, if nothing else, shows that Aristotle regards each of the first two descriptions as admissible in a certain sense. The Nous knows insensible things by a faculty different from that by which it knows sensible objects, and, indeed, different in essence and actual reality (*χωριστὸν*) from the faculty of sense-perception, seeing that it knows them by itself alone; but in so far as it is also true that the reason knows sensible things, we may say that it knows insensible things by a different method; it knows the former directly, the latter only indirectly by means of the judgment it passes upon the data of sense. This is the meaning of the words *ἢ ὡς ἡ κεκλασμένη* &c., the further explanation of which is of minor importance in connection with the essential meaning of the passage, since this would be the same even although we take the illustration of the broken and extended line as merely explanatory of *ἄλλως ἔχειν*.

[1] To this faculty belong first and chiefly the highest principles of thought, the *ἄμεσα*; cf. i. 197, n. 4, *supra*. In this way (according to i. 197, n. 3, *sup.*, cf. the citation from *Metaph.* xii. 7, i. 203, n. 3, *sup.*) Nous knows itself by an immediate intuition, as thinker and thought here coincide. Whether the thought of God and other metaphysical conceptions are also the objects of immediate cognition, Aristotle, as already observed, i. 204, does not say.

[2] *De An.* iii. 4, 429, a, 18 (on what precedes see i. 199, n. 2, *sup*): *ἀνάγκη ἄρα, ἐπεὶ πάντα νοεῖ, ἀμιγῆ εἶναι, ὥσπερ φησὶν Ἀναξαγόρας* [see ZELL. *Ph. d. Gr.* i. 886, 1] *ἵνα κρατῇ, τοῦτο δ' ἐστὶν ἵνα γνωρίζῃ· παρεμφαινόμενον γὰρ κωλύει τὸ ἀλλότριον καὶ ἀντιφράττει, ὥστε μηδ' αὐτοῦ εἶναι φύσιν μηδεμίαν ἀλλ' ἢ ταύτην, ὅτι δυνατόν. ὁ ἄρα καλούμενος τῆς ψυχῆς νοῦς . . . . οὐθέν ἐστιν ἐνεργείᾳ τῶν ὄντων πρὶν νοεῖν. διὸ οὐδὲ μεμῖχθαι εὔλογον αὐτὸν τῷ σώματι. ποιός τις γὰρ ἂν γίγνοιτο, ψυχρὸς ἢ θερμὸς* [it would in this case partake of the properties of the body and as it would thus bring with it definite qualities to the cognition of *νοητὰ*, it could not exhibit that *ἀπάθεια*—see i. 199, n. 2, *supra*—and purity from

Just as it has for its object pure form abstracted from all matter, so is it itself free and unfettered by the body.[1] It has no bodily organ like the senses;[2] it is not born into existence like the other parts of the

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admixture which it requires for the exercise of its universal faculty of thought: an explanation which seems to harmonise better with the meaning of διὸ &c. than that of BRENTANO, *ibid.* 120 sqq.], ἢ κἂν ὄργανόν τι εἴη, ὥσπερ τῷ αἰσθητικῷ· νῦν δ' οὐθέν ἐστιν: b, 22. ἀπορήσειε δ' ἄν τις, εἰ ὁ νοῦς ἁπλοῦν ἐστι καὶ ἀπαθὲς [HAYDUCK, *Observat. crit. in loc. al. Arist.* p. 3, not without reason regards these words as strange, inasmuch as it hardly requires to be explained, as is done l. 25 sqq., that τὸ ἀπαθὲς is not subject to πάσχειν; he would therefore strike them out; we might prefer instead of ἀπαθὲς to read 'ἀμιγὲς'— see 429, a, 18 quoted above] καὶ μηθενὶ μηθὲν ἔχει κοινὸν, . . . πῶς νοήσει, εἰ τὸ νοεῖν πάσχειν τί ἐστιν. This independence of the reason explains the remark which is added, *De An.* ii. 1, 413, a, 4 sqq. to the definition of the soul as the entelechy of its body: it follows that the soul (or at any rate certain parts of it, if it has parts) is not separate (χωριστὸς) from the body: οὐ μὴν ἀλλ' ἔνιά γε οὐθὲν κωλύει (see p. 6, n. 1, *supra*). Cf. further n. 3 below, p. 96, n. 2, *infra*, and the passages referred to below bearing upon νοῦς ποιητικὸς; also *De An.* i. 3, 407, a, 33: ἡ νόησις ἔοικεν ἠρεμήσει τινὶ καὶ ἐπιστάσει μᾶλλον ἢ κινήσει. *Phys.* vii. 3, 247, b, 1: οὐδ' αἱ τοῦ νοητικοῦ μέρους ἕξεις ἀλλοιώσεις. *Ibid.* 247, a, 28: ἀλλὰ μὴν οὐδὲ τῷ διανοητικῷ μέρει τῆς ψυχῆς ἡ ἀλλοίωσις &c.; nor is λῆψις ἐπιστήμης a γένεσις or ἀλλοίωσις, but rather an ἠρεμία καὶ κατάστασις ταραχῆς—the removal of obstructions which hinder the reason in the exercise of its functions, resembling the awakening from sleep.

[1] See p 93, n. 6, *sup.* Χωριστὸς is often applied to Nous, the lower faculties of the soul being ἀχώριστοι; cf. preced. and foll. n. p. 96, n. 1, *infra*. *De An.* ii. 2. 413, b, 24: περὶ δὲ τοῦ νοῦ καὶ τῆς θεωρητικῆς δυνάμεως οὐδέν πω φανερὸν, ἀλλ' ἔοικε ψυχῆς γένος ἕτερον εἶναι, καὶ τοῦτο μόνον ἐνδέχεται χωρίζεσθαι [sc. τοῦ σώματος], καθάπερ τὸ ἀΐδιον τοῦ φθαρτοῦ.

[2] See preced. and foll. n. and the further statement *De An.* iii. 4, 429, a, 29: ὅτι δ' οὐχ ὁμοία ἡ ἀπάθεια τοῦ αἰσθητικοῦ καὶ τοῦ νοητικοῦ, φανερὸν ἐπὶ τῶν αἰσθητηρίων καὶ τῆς αἰσθήσεως. ἡ μὲν γὰρ αἴσθησις οὐ δύναται αἰσθάνεσθαι ἐκ τοῦ σφόδρα αἰσθητοῦ . . . ἀλλ' ὁ νοῦς ὅταν τι νοήσῃ σφόδρα νοητὸν. οὐχ ἧττον νοεῖ τὰ ὑποδεέστερα, ἀλλὰ καὶ μᾶλλον· τὸ μὲν γὰρ αἰσθητικὸν οὐκ ἄνευ σώματος, ὁ δὲ χωριστός. In view of these definite declarations, the attempt (KAMPE, *Erkenntnissth. d. Ar.* 12–49) to attribute to the Nous a material substratum consisting of æther must appear at the outset a profitless one. Not even the passage quoted p. 6, n. 2, from *Gen. An.* ii. 3 can be adduced in support of it, for even there the σπέρμα of the

soul;[1] nor is it affected by the death of the body.[2] It is real, therefore, only in the act of thinking; apart

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ψυχικὴ ἀρχὴ, so far as it refers to the Nous, is described as *χωριστὸν σώματος* and even although it is said that it enters the womb with the *γονὴ*, it does not follow from this that it is united to this or any other material substratum: the Nous is said, indeed, to be in the body during life, but not to be mixed up with it or entangled in its life; the *γονὴ* itself it enters from without; cf. p. 100, *infra*. Furthermore, even although the æther like the Nous is called divine and unchangeable, the essential distinction between them (the one is a body, the other is not) is not thereby abolished, for it has already been shown, i. 476, that we have nothing to do with any 'immaterial matter'; and when KAMPE, p. 32, 39, argues in support of his view that the stars, which are made of æther, are intelligent beings, he forgets that it is not the stars themselves that are so, but the spirits by whom they and their spheres are moved. Although, lastly, the Nous is said, *Eth.* x. 7, 1177, b, 34, as compared with the multiplicity of the other faculties of the soul, to be 'of small compass (*τῷ ὄγκῳ μικρὸν*) but pre-eminent in power and value,' we cannot fairly conclude from this metaphorical expression that it is held by Aristotle to be united to a body.

[1] *Gen. An.* ii. 3, 736, a, 31, Aristotle asks: *πότερον ἐνυπάρχει* [*ἡ ψυχὴ*] *τῷ σπέρματι καὶ τῷ κυήματι ἢ οὔ, καὶ πόθεν;* to which he replies (b, 8): *τὴν μὲν οὖν θρεπτικὴν ψυχὴν τὰ σπέρματα καὶ τὰ κυήματα τὰ χωριστὰ δῆλον ὅτι δυνάμει μὲν ἔχοντα θετέον, ἐνεργείᾳ δ' οὐκ ἔχοντα, πρὶν ἢ καθάπερ τὰ χωριζόμενα τῶν κυημάτων ἕλκει τὴν τροφὴν καὶ ποιεῖ τὸ τῆς τοιαύτης ψυχῆς ἔργον.* With regard to the *ψυχὴ αἰσθητικὴ* and *νοητικὴ* he then shows that either all their parts must come into being for the first time at the moment of birth or must all have pre-existed, or else that some of them do the one, some the other, and continues: *ὅτι μὲν τοίνυν οὐχ οἷόν τε πάσας προϋπάρχειν φανερόν ἐστιν ἐκ τῶν τοιούτων. ὅσων γάρ ἐστιν ἀρχῶν ἡ ἐνέργεια σωματικὴ, δῆλον ὅτι ταύτας ἄνευ σώματος ἀδύνατον ὑπάρχειν, οἷον βαδίζειν ἄνευ ποδῶν· ὥστε καὶ θύραθεν εἰσιέναι ἀδύνατον. οὔτε γὰρ αὐτὰς καθ' αὐτὰς εἰσιέναι οἷόν τε ἀχωρίστους οὔσας, οὔτ' ἐν σώματι εἰσιέναι· τὸ γὰρ σπέρμα περίττωμα μεταβαλλούσης τῆς τροφῆς ἐστὶν* [and therefore not something coming from without]. *λείπεται δὲ* [*δὴ*] *τὸν νοῦν μόνον θύραθεν ἐπεισιέναι καὶ θεῖον εἶναι μόνον· οὐθὲν γὰρ αὐτοῦ τῇ ἐνεργείᾳ κοινωνεῖ σωματικὴ ἐνέργεια.* 737, a, 7: *τὸ δὲ τῆς γονῆς* &c. see p. 6, n. 2, *sup.* *De An.* i. 4; see foll. n. For further discussion of the question of the entrance of reason into the body, see p. 80, *supra*.

[2] *De An.* i. 4, 408, b, 18: *ὁ δὲ νοῦς ἔοικεν ἐγγίνεσθαι οὐσία τις οὖσα καὶ οὐ φθείρεσθαι. μάλιστα γὰρ ἐφθείρετ' ἂν ὑπὸ τῆς ἐν τῷ γήρᾳ ἀμαυρώσεως, νῦν δ' ἴσως ὅπερ ἐπὶ τῶν αἰσθητηρίων συμβαίνει· εἰ γὰρ λάβοι ὁ πρεσβύτης ὄμμα τοιονδὶ, βλέποι ἂν ὥσπερ καὶ ὁ νέος. ὥστε τὸ γῆρας οὐ τῷ τὴν ψυχήν τι πεπον-*

from this it is the mere potentiality of thought.[1] And since actual thought in the sphere of nature precedes the mere potentiality to think, while in the sphere of the human mind potentiality necessarily precedes actuality,[2] Aristotle distinguishes two kinds of Reason in man—the Actual and the Potential, the Active and the Passive:[3] that which produces everything, and that which becomes everything.[4] The former alone is separate and distinct from the body—impassible, eternal, immortal, absolutely pure and perfect Actuality. Pas-

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θέναι, ἀλλ' ἐν ᾧ [= *ἀλλὰ τῷ πεπονθέναι τι ἐκεῖνο ἐν ᾧ ἡ ψυχή ἐστιν*], *καθάπερ ἐν μέθαις καὶ νόσοις. καὶ τὸ νοεῖν δὴ καὶ τὸ θεωρεῖν μαραίνεται ἄλλου τινὸς ἔσω* [inside the body] *φθειρομένου, αὐτὸ δὲ ἀπαθές ἐστιν* [the subject of *ἀπαθὲς* is *τὸ νοοῦν*, which corresponds to *νοῦς* above and is to be supplied from *νοεῖν*] . . . *ὁ δὲ νοῦς ἴσως θειότερόν τι καὶ ἀπαθές ἐστιν*. iii. 5, 430, a, 22 (see p. 98, n. 1, *infra*); *Metaph.* xii. 3, 1070, a, 24 sqq. (see Sec. on Immortality, *infra*).

[1] *De An.* iii. 4, 429, a, 21 sqq. b. 5 sqq. 30; see i. 199, n. 2, *supra*, where the meaning of this statement is further explained.

[2] See i. 199, n. 2, *supra*

[3] Aristotle certainly speaks of *νοῦς παθητικὸς* (see p. 98, n. 1, *infra*); on the other hand, he nowhere uses the expression *ποιητικὸς νοῦς* (cf. BONITZ, *Ind. Ar.* 491, b, 2; WALTER, *Die Lehre v. d. prakt. Vern.* 278 sqq.), perhaps because he wished to avoid the ambiguity which might arise out of the opposition he elsewhere makes between *ποιεῖν* and *πράττειν* on the one hand, and *θεωρεῖν* on the other (see i. 182, n. 2, *supra*), if the *νοῦς ποιητ.* were taken to be the antithesis of *νοῦς θεωρητικὸς* (*De An* ii. 3, 415, a, 11, iii. 9, 432, b, 27, iii. 10, 433, a, 14), in the same sense as *νοῦς πρακτικὸς* (*De An.* iii. *ibid.*) must be. But as the *νοῦς ποιητ.* is called *αἴτιον καὶ ποιητικὸν*, as it is said *πάντα ποιεῖν*, and as *ποιητικὸς* is elsewhere constantly used as the antithesis of *παθητικὸς* (*Ind. Ar.* 555, b, 16 sqq.), we seem to be perfectly justified in speaking of the passive and the active reason, especially as this seems to be already a recognised mode of expression in ALEX. *De An.* 140 (cf. WALTER, 282).

[4] *De An.* iii. 5 *init.*: *ἐπεὶ δ' ὥσπερ ἐν ἁπάσῃ τῇ φύσει ἐστί τι τὸ μὲν ὕλη ἑκάστῳ γένει (τοῦτο δὲ ὃ πάντα δυνάμει ἐκεῖνα), ἕτερον δὲ τὸ αἴτιον καὶ ποιητικόν, τῷ ποιεῖν πάντα, οἷον ἡ τέχνη πρὸς τὴν ὕλην πέπονθεν, ἀνάγκη καὶ ἐν τῇ ψυχῇ ὑπάρχειν ταύτας τὰς διαφοράς. καὶ ἔστιν ὁ μὲν τοιοῦτος νοῦς τῷ πάντα γίνεσθαι, ὁ δὲ τῷ πάντα ποιεῖν, ὡς ἕξις τις, οἷον τὸ φῶς· τρόπον γάρ τινα καὶ τὸ φῶς ποιεῖ τὰ δυνάμει ὄντα χρώματα ἐνεργείᾳ χρώματα.*

sive Reason, on the other hand, is born and dies with the body, and is a partaker in its states.[1]

If we try, however, to reduce this account to a clear and consistent theory, we are met by many questions which Aristotle has left unanswered.

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[1] *Ibid.* where Aristotle continues: *καὶ οὗτος ὁ νοῦς* [*ὁ ποιητικὸς*] *χωριστὸς καὶ ἀπαθὴς καὶ ἀμιγὴς τῇ οὐσίᾳ ὢν ἐνεργείᾳ* [or *ἐνέργεια*]. *ἀεὶ γὰρ τιμιώτερον τὸ ποιοῦν τοῦ πάσχοντος καὶ ἡ ἀρχὴ τῆς ὕλης. τὸ δ' αὐτό ἐστιν ἡ κατ' ἐνέργειαν ἐπιστήμη τῷ πράγματι·* [cf. i. 398, n. 3, *supra*] *ἡ δὲ κατὰ δύναμιν χρόνῳ προτέρα ἐν τῷ ἑνὶ, ὅλως δὲ οὐδὲ* [so TORSTR. reads instead of *οὐ*] *χρόνῳ· ἀλλ' οὐχ ὁτὲ μὲν νοεῖ ὁτὲ δ' οὐ νοεῖ. χωρισθεὶς δ' ἐστὶ μόνον τοῦθ' ὅπερ ἐστὶ* [apart from the body it is only what it is without admixture of any foreign ingredient], *καὶ τοῦτο μόνον ἀθάνατον καὶ ἀΐδιον. οὐ μνημονεύομεν δὲ, ὅτι τοῦτο μὲν ἀπαθὲς, ὁ δὲ παθητικὸς νοῦς φθαρτὸς καὶ ἄνευ τούτου οὐθὲν νοεῖ.* The words at the beginning of this passage are interpreted by BRENTANO (*Psychol. d. Ar.* 175) and HERTLING (*Mat. u. Form*, 173) as meaning 'this Nous also is separate.' This is opposed, however, both to the grammar and to the sense of the passage; in the first place, the connection is thus broken between this sentence and the preceding (we should require at least *καὶ οὗτος δὲ ὁ νοῦς* &c.), and, secondly, not only is there nothing in the previous discussion about another kind of Nous which is also *χωριστὸς* and *ἀπαθὴς*, but Aristotle knows of none such, the *νοῦς παθητικὸς*, of which he has just been speaking, being of course not *ἀπαθὴς*, while the Nous that is spoken of, c. 4 (as will be shown p. 101, n. 2, *infra*), is itself the active Nous. The words: *τὸ δ' αὐτὸ . . . χρόνῳ* that follow are repeated at the beginning of c. 7; but as they there awkwardly interrupt the connection, TORSTRIK, p. 199, is doubtless right in holding that they along with the rest of c. 7, § 1 (to *τετελεσμένον*, 431, a, 7) are out of place. On the other hand, TORSTRIK (p. 185) cannot be right in striking out the *οὐχ* in the words *ἀλλ' οὐχ ὁτὲ μὲν νοεῖ* &c. According to his reading no intelligible meaning can be attached to the remark that the Nous at one time thinks, at another it ceases to think; whereas it becomes quite intelligible if we suppose Aristotle to say: 'In the world as a whole merely potential knowledge does not precede actual knowledge even in the order of time (not to speak of that of being); it is not the case (in the world as a whole) that the Nous [this must in any case be supplied as the subject] at one time thinks, at another ceases to think.' (To make this sense more obvious a comma might be placed instead of a colon before *ἀλλ' οὐχ* &c.) Nor is this sense inconsistent with *μὴ ἀεὶ νοεῖν*, c. 4, 430, a, 5, as these words refer to thought in the individual, in which the passage before us also recognises the distinction between the potential and the actual, and therefore *τὸ μὴ ἀεὶ νοεῖν.*

In the first place, with regard to Active Reason, it might appear that this is not only the Divine in man,[1] but that it is identical with the Divine Spirit itself. For while it enters each man along with the germ of his physical and psychical nature as something individual, yet at the same time the terms in which it is described are such as apply only to the Universal Spirit. It is at least difficult to understand what is left of individuality when we have abstracted from it not only all corporeal life, but also all active evolution,[2] all passive states, and with these all memory and self-consciousness.[3] So far Alexander of Aphrodisias had excellent cause to seek for the Active Reason in the Divine Spirit rather than in a part of the human soul.[4] But this cannot be Aristotle's meaning. For the extramundane Divine Spirit cannot be identified with the indwelling principle of Reason which passes into the individual at birth and is a part of the human soul.[5] Yet how we are precisely to represent to ourselves this part of our soul, and what kind of reality we are to ascribe to it, it is difficult to say. Since it is said to enter the body from without,[6] it must have existed previously. And this is evidently Aristotle's view.[1] Since, moreover, even after it has entered the body it stands aloof from it and takes no part in its activity,[2] the independence of its life is not compromised by this union, nor is it conditioned in any way by the life of the body. But on the other hand, whether we look at the matter from our own or from Aristotle's point of view, the individuality which belongs to Reason as a part of the human soul appears in this way to be sacrificed. For according to Aristotle the individual Callias or the individual Socrates is constituted only by the union of the universal form of man with this particular human body.[3] So, in like manner, only when Reason enters a human body and employs it as its instrument do we have an individual human reason. But how when it is united with no body, or when in spite of such union it has no material organ and is wholly unaffected by the body, it could be the reason of this definite individual—how, in other words, it could constitute a rational Ego, baffles comprehension.[1] Aristotle himself says,[2] indeed, that we do not recollect the former existence of active reason, because it is the passive reason which renders thought possible, and this is perishable;[3] just as he predicates continuous thought (which he attributes to active reason) only of reason in general, and not of reason in any individual.[1] But where shall we look for that principle of reason which in unchangeable, eternal, unfettered by the body, and ceaselessly active, if it coincides neither with the Divine thought on the one hand, nor with the thought of any individual on the other?

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[1] See the passages cited, p. 96, n. 1 and 2, *supra*, and *Eth.* x. 7, 1177, a, 15: *εἴτε θεῖον ὂν καὶ αὐτὸ [ὁ νοῦς] εἴτε τῶν ἐν ἡμῖν θειότατον.* b, 30: *εἰ δὴ θεῖον ὁ νοῦς πρὸς τὸν ἄνθρωπον.*

[2] This can only be where there is a transition from the potential to the actual; in the active reason, on the other hand, there is nothing merely potential, for all is pure actuality.

[3] That even these belong to the sphere of the passive reason is expressly stated *De An.* iii. 5 (p. 97, n. 1), and proved in the sequel.

[4] Cf. *Part.* iii. a, 712, 4.

[5] The distinction between the active and the passive reason is said (and to this THEMIST. *De An.* 89, b, pp. 188 sq. Sp. and AMMON. *in* PHILOP. *De An.* Q, 3, o, also appeal) to reside *ἐν τῇ ψυχῇ* (see *ibid. supra*); of one *μόριον τῆς ψυχῆς* it is said, *De An.* iii. 4, 429, a, 10, 15, that it is *ἀπαθὲς*; the *νοῦς χωριστὸς* is called. *De An.* ii. 2, 413, b, 24, *ψυχῆς γένος ἕτερον* &c.

[6] See p. 96, n. 1, *supra.*

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[1] In the passage 736, b, 15 sqq. referred to at p. 96 *sup.*, it is said with regard to the *ψυχὴ αἰσθητικὴ* and *νοητικὴ*: *ἀναγκαῖον δὲ ἤτοι μὴ οὔσας πρότερον* [sc. *τὰς ψυχὰς*] *ἐγγίνεσθαι πάσας, ἢ πάσας προϋπαρχούσας, ἢ τὰς μὲν τὰς δὲ μὴ, καὶ ἐγγίνεσθαι ἢ ἐν τῇ ὕλῃ* [therefore in the menses] *μὴ εἰσελθούσας ἐν τῷ τοῦ ἄρρενος σπέρματι, ἢ ἐνταῦθα* [in the mother] *μὲν ἐκεῖθεν* [from the *σπέρμα*] *ἐλθούσας, ἐν δὲ τῷ ἄρρενι ἢ θύραθεν ἐγγινομένας ἁπάσας ἢ μηδεμ΄αν ἢ τὰς μὲν τὰς δὲ μή.* As the passage proceeds immediately to say (see p. 96, n. 1, *ὅτι μὲν τοίνυν οὐχ οἷόν τε πάσας ποϋπάρχειν, φανερόν ἐστιν* [since some are united to bodily organs], *ὥστε καὶ θύραθεν εἰσιέναι ἀδύνατον*—it is obvious that according to Aristotle *προϋπάρχειν* and *θύραθεν εἰσιέναι* are inseparably connected, and that accordingly if the latter is true of the Nous and of it alone, the former must also be true.

[2] Cf. p. 94, n. 2, p. 96, n. 1, *sup.* (*οὐθὲν αὐτοῦ τῇ ἐνεργείᾳ κοινωνεῖ σωυατικὴ ἐνέργεια*).

[3] Cf. i. 369, n. 5, 6, *supra.*

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[1] How its connection with the body is in this case possible at all is equally unintelligible, seeing that according to p. 106, n. 5, *infra*, the body is connected with the soul itself as its tool.

[2] In the words quoted p. 98, n. 1, *sup.*, from *De An.* iii. 5, 430, a, 23: *οὐ μνημονεύομεν δὲ* &c. It does not matter very much whether we understand these words in their simplest sense as meaning that in the present life we have no recollection of the former one, or that after death we have no recollection of the present life, or more generally that the eternal life of the active Nous is wholly without memory—for the reasons why 'we do not remember' hold of the continuity of consciousness between the life which the reason lives in union with the passive Nous and that which it lives in freedom from it both backwards and forwards. In the first instance, however (as is shown by BIEHL, *Ueb. d. Begr. des νοῦς b. Arist.* Linz, 1864, p. 12 sq., and TRENDELENBURG *in loco*, who, however, afterwards, n. on p. 404, 2nd ed., changed his view), the words certainly mean that in the present life we remember no former one. This is the meaning suggested by the context and supported by the present tense of the verb.

[3] *Οὐ μνημονεύομεν δὲ ὅτι τοῦτο μὲν ἀπαθὲς, ὁ δὲ παθητικὸς νοῦς φθαρτὸς καὶ ἄνευ τούτου οὐθὲν νοεῖ.* TRENDELENBURG translates the latter words, 'and as the passive reason does not think anything apart from the active reason.' But it is not easy to see what they add to the explanation. If memory belongs to the *νοῦς παθητικὸς* of course, as *φθαρτὸς* (which as the antithesis of *ἀΐδιον* refers to the beginning as well as the ending of existence, cf. i. 366, n. 1 *fin. supra*) the latter can have no recollection of the time in which it did not yet exist, or at the time in which it no longer exists; and the remark *καὶ ἄνευ* &c. is therefore superfluous. If, on the other hand, it is the *νοῦς ἀπαθὴς* to which memory belongs, the failure of memory is not explained at all, since it is said, not that it cannot do without the *νοῦς παθητικὸς*, but that the *νοῦς παθ.* cannot do without it in the exercise of its activity. We must take *τούτου*, therefore, as meaning the *νοῦς παθητ.* and *νοεῖ* either in an absolute sense, according to a familiar usage in Aristotle = *οὐθὲν νοεῖ ὁ νοῶν* (or *ἡ ψυχὴ*), no thought is possible, or as having the active Nous for its subject. The latter is not inconsistent with the previous *οὐχ ὁτὲ μὲν νοεῖ* &c. (p. 98, n. 1); for even there it is admitted that in the individual potential knowledge precedes actual, and therefore *οὐχ ὁτὲ μὲν νοεῖ* &c. does not apply to individual thought. It is of this, however, that we must understand Aristotle to speak in the words, *ἄνευ τούτου οὐθὲν νοεῖ*, which mean, therefore, nothing

No less serious are the difficulties that surround the doctrine of the passive reason. We understand what led Aristotle to distinguish in the first instance a twofold reason in man: he could not overlook the gradual evolutions of the spiritual life and the difference between the faculty and the activity of Thought; while, on the other hand, he was forbidden by the principles of his philosophy to think of Pure Reason as in any sense material, or at least to predicate of it attributes and states which can belong to matter alone. We see, also, what in general he meant by the phrase Passive Reason: viz. the sum of those faculties of representation which go beyond imagination and sensible perception and yet fall short of that higher Thought, which has found peace in perfect unity with its object. The Passive Reason is that side of Thought which deals with the manifold of sense. It has its roots in the life of the body, and develops out of sensible experience.[2]

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more than the statement elsewhere made, that the soul cannot think without a φάντασμα (cf. p. 108, n. 2, *infra*).

[1] In the words of the passage we have been discussing (p. 98, n. 1): ἡ δὲ κατὰ δύναμιν χρόνῳ προτέρα ἐν τῷ ἑνὶ &c.

[2] In this sense BRANDIS (*Gesch. d. Entw.* i. 518, cf. *Handb.* ii. b, 1178) understands by 'passive spirit,' spirit 'in its connection with representation in so far as it borrows the material for mediating thought from it and sensible perception and requires mental pictures,' or 'in so far as it operates as mediat-

But when we go on and try to form a more definite conception of this part or faculty of the soul, we find the theory full of the most obvious contradictions and defects. On the other hand, Passive Reason is identified with Nous and the spiritual element in man. This Aristotle definitely distinguishes from all the faculties of sense-perception, so that it is impossible to identify it either, as Trendelenburg[1] did, with the unity of these, or, as Brentano does,[2] with fancy as the seat of mental pictures.[3] All these man has in common with the beasts, whereas Nous is that which elevates him above them.[4] And yet, on the other hand, everything is denied of the Passive Reason as such, which elsewhere is regarded as peculiarly characteristic of Reason itself. Speaking of Nous quite generally, Aristotle says that it is neither born nor dies; it is liable to neither suffering nor change; it is separate from the body and has no bodily organ; it acts altogether independently of the body: it enters it from without; it

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ing thought.' Similarly, BIEHL, *Ueb. d. Begr. d. νοῦς* b. ARIST. (Linz, 1864, *Gymn. Progr.*), pp. 16 sq. But the difficulties above noted are not thus met.

[1] *Arist. De An.* 493 (405): 'Quæ a sensu inde ad imaginationem mentem antecesserunt, ad res percipiendas menti necessaria; sed ad intellegendas non sufficiunt. Omnes illas, quæ praæcedunt, facultates in unum quasi nodum collectas, quatenus ad res cogitandas postulantur, νοῦν παθητικὸν dictas esse arbitramur.' Similarly, HERTLING, *Mat. u. Form*, 174, defines νοῦς παθ. as 'the cognitive capacity of the sensitive part.'

[2] *Psychol. d. Ar.* 208 sq.

[3] Upon which see p. 108, n. 2, *infra*.

[4] Cf. p. 58 sq., p. 61, with p. 93 *supra*. The name itself of νοῦς παθητ. is a preliminary objection to this explanation. For the faculties of sensation and presentation Aristotle has the fixed terms, αἴσθησις and φαντασία. Why, then, should he make use of another incomprehensible and misleading one without giving any indication that it is synonymous with these terms? Nor can appeal be made to *Eth.* vi. 12, 1143, b, 4, as αἴσθησις does not there mean sense-perception; cf. i. 250, n. 1, *supra*.

neither comes into existence with it nor perishes with it.[1] Yet in the sequel we learn that all this holds in truth only of the Active Reason. It alone is bodiless, impassible, eternal, imperishable, &c.[2] By what right, then, Passive Reason can be regarded as Nous, or how two natures with characteristics so incompatible—the one mutable, the other immutable; the one passive, the other impassive; the one mere potentiality, the other ceaseless activity—how these two can constitute one being, one spiritual personality, passes comprehension. Nor do we require to look further than the impossibility of harmonising the Aristotelian doctrine of the twofold Reason with itself to find an explanation of the wide divergence of the views of its critics as to its true meaning.[1]

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[1] Cf. p. 93 sq.

[2] See p. 98. The attempt to obviate this difficulty by the supposition of a third form of *νοῦς*, as the 'receptive understanding,' differing alike from the active and the passive reason and alluded to *De An.* iii. 4 (BRENTANO, *Psychol. d. Ar.* 143, 175, 204 sq. 208; HERTLING, *Mat. u. Form*, 170 sq.) cannot be supported. Aristotle indeed calls *νοῦς* (*De An.* iii. 4, 429, a, 15) *δεκτικὸν τοῦ εἴδους*, but there is not a word to indicate that he regards this 'receptive' reason as a third faculty different from the active and passive. He is speaking in *De An.* iii. 4 of Nous quite generally, as he does also in identical terms and with the same generality in *De An.* i. 4. ii. 1, 2; *Gen. An.* ii. 3 (p. 94, n. 2; p. 95, n. 1, p. 96, n. 2, *sup.*). It is equally difficult to obtain any clear conception of this 'receptive understanding' or to find a place for it in Aristotle's doctrine of the soul. Nor, indeed, would anything be gained by such an assumption. If it is said, in *De An.* iii. 5, that the active Nous alone is *χωριστὸς, ἀπαθὴς, ἀμιγὴς, ἀθάνατος, ἀΐδιος*, and if the same predicates are assigned in c. 4 to a different faculty, i.e. the 'receptive' reason (there is no express mention, indeed, here of its eternity, but this is involved in *χωριστὸς*), we have simply a contradiction in terms. If, on the other hand, those predicates are first assigned to Nous in general, and it is afterwards added that they belong only to the higher part of it, whereas the other statement made about it (that it is nothing *ἐνεργείᾳ* before it thinks; see, p. 94, n. 2, *supra*) is true of its lower part, there is at least no obvious contradiction in the explanation. In this case the difficulty arises later, when we further ask how are we to conceive of these two parts in detail.

Reason realises itself in Thought, which regarded in its essence is not the mediate process of forming conceptions by the gradual union of their several parts, but is a single immediate apprehension of intelligible reality, constituting one indivisible act.[2] It deals, not with any combination of conceptions, but with the pure conceptions themselves, which are the undemonstrable presuppositions of all knowledge. It is, therefore, absolutely true and infallible,[1] and must be distinguished from mediate apprehension[2] or knowledge.[3] Yet Aristotle fails to tell us what are the faculties upon which its exercise depends and what is its relation to these, although we can hardly but suppose that some operation of the Active upon the Passive Reason is here meant. Similarly Opinion[4] may be regarded as the product of Reason and Perception,[5] although here also

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[1] Theophrastus had already found difficulties in Aristotle's doctrine of the Nous (cf. 2nd ed. pp. 677 sq.) The example of Aristocles and Alexander of Aphrodisias shows (cf. ZELL. pt. iii. a. 703 sq. 712) how the later Peripatetics differed on the subject. Cf. further the citations and explanations of THEMIST. *De An.* 89, b, 9 sq. and PHILOP. *De An.* Q. 2, and sqq. (less satisfactory is SIMPL. *De An.* 67, b, f.). In the middle ages it was chiefly among the Arabian philosophers and the Italian followers of Averroës that the question was debated. The older and the more recent views upon the doctrine of the twofold nature of the Nous, especially (p. 8–29) those of Avicenna, Averroës and Thomas, are fully discussed by BRENTANO, *ibid.* 5 sqq.

[2] As already shown (i. 203, n. 3, *sup.*), Aristotle describes the thinking of νοῦς as a *contact* of it with the object of thought. In this way it has unity and especially qualitative simplicity, which is not, like the unity of space and time, again itself divisible; *De An.* iii. 6 *init.*: ἡ μὲν οὖν τῶν ἀδιαιρέτων νόησις ἐν τούτοις, περὶ ἃ οὐκ ἔστι τὸ ψεῦδος . . . τὸ δ' ἀδιαίρετον ἐπεὶ διχῶς, ἢ δυνάμει ἢ ἐνεργείᾳ, οὐθὲν κωλύει νοεῖν τὸ ἀδιαίρετον, ὅταν νοῇ τὸ μῆκος· ἀδιαίρετον γὰρ ἐνεργείᾳ καὶ ἐν χρόνῳ ἀδιαιρέτῳ· ὁμοίως γὰρ ὁ χρόνος διαιρετὸς καὶ ἀδιαίρετος τῷ μήκει. οὔκουν ἔστιν εἰπεῖν ἐν τῷ ἡμίσει τί ἐννοεῖ ἑκατέρῳ, οὐ γάρ ἐστιν, ἂν μὴ διαιρεθῇ, ἀλλ' ἢ δυνάμει [i.e. in every spatial quantity, if it is presented, not successively, but simultaneously as a whole, an ἀδιαίρετον is thought, for though divisible it is not actually divided] . . . τὸ δὲ μὴ κατὰ ποσὸν ἀδιαίρετον ἀλλὰ τῷ εἴδει νοεῖ ἐν ἀδιαιρέτῳ χρόνῳ καὶ ἀδιαιρέτῳ τῆς ψυχῆς. After showing further that in the case of space and time the indivisible quantities like the point are known only by antithesis to the divisible, and that this is so also with evil, Aristotle continues, 430, b, 24: εἰ δέ τινι μὴ ἔστιν ἐναντίον τῶν αἰτίων [these words, which TORSTRIK also, 193 sqq., endeavours to emend by a conjecture which is not quite clear, seem obviously to be most simply emended by assuming that τῶν αἰτίων, for which Cod. S. gives τ. ἐναντίων, has arisen from ἐναντίον by a reader's error and duplication; for the πρῶτον, the divine reason, is said also to have no ἐναντίον by reason of its immateriality, *Metaph.* xii. 10, 1075, b, 21, 24], αὐτὸ ἑαυτὸ γινώσκει καὶ ἐνεργείᾳ ἐστὶ καὶ χωριστόν. That this knowledge is immediate

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is implied both here and in passages such as *Anal. Post.* i. 3, 72, b, 18, ii. 9 *init.* (τῶν τί ἐστι τὰ μὲν ἄμεσα καὶ ἀρχαί εἰσιν, ἃ καὶ εἶναι καὶ τί ἐστιν ὑποθέσθαι δεῖ ἢ ἄλλον τρόπον φανερὰ ποιῆσαι); c. 10, 94, a, 9, where it is added that the reason is the faculty which has to do with first principles. Cf. i. 245 sqq., i. 197, n. 4, *supra.*

[1] See i. 197, n. 4, *supra.*

[2] This mediate knowledge was distinguished from νοῦς by Plato by the name διάνοια or ἐπιστήμη (see ZELL. pt. i. 536, 2); similarly Arist. *De An.* i. 4, 408, b, 24 sqq. where it is called διάνοια, and *ibid.* ii. 3, 415, a, 7 sqq. where it is called λογισμὸς and διάνοια. Usually, however, Aristotle employs διάνοια and διανοεῖσθαι in a wider sense, for thought generally (*e.g. Metaph.* vi. 1, 1025, b, 6; *Polit.* vii. 2, 1324, a, 20, c. 3, 1325, b, 20; *Eth.* ii. 1 *init.*; *Poët.* 6, 1450, a, 2, and elsewhere); τὸ λογιστικὸν indicates (*De An.* iii. 9, 432, b, 26) likewise the faculty of thought in general, although in most places (*e.g. Eth.* vi. 2, 1139, a, 12, sqq.; *De An.* iii. 10, 433, a, 12, b, 29, c. 11, 434, a, 7) it is the deliberative faculty, or practical reason (see *infra*). On διάνοια, cf. ALEX. on *Metaph.* 1012, a, 2; THEMIST. *De An.* 71, b, o; TRENDELENBURG, *Arist. De An.* 272; SCHWEGLER, *Arist. Metaph.* iii. 183; BONITZ, *Arist. Metaph.* ii. 214, and especially WAITZ, *Arist. Org.* ii. 298; on λογισμὸς BONITZ, *ibid.* 39 sq.

[3] *Eth.* vi. 3, 1139, b, 31 (after explaining the distinguishing characteristics of ἐπιστήμη): ἡ μὲν ἄρα ἐπιστήμη ἐστὶν ἕξις ἀποδεικτική See further *ibid.* above and cf. i. 163, n. 3. It is a further meaning of the word when in *Anal. Post.* i. 3, 72, b, 18, 33, 88, a, 36, an ἐπιστήμη ἀναπόδεικτος is spoken of, and defined as ὑπόληψις τῆς ἀμέσου προτάσεως (on which see i. 197, *supra*).

[4] On the difference between opinion and knowledge, see i. 163, *supra.*

[5] On the one hand, δόξα has to do, not, like knowledge, with

we are without any express statement. Moreover, it must be by the operation of Reason that man can recall at pleasure his former impressions and recognise them as his own.[1] To the same source in Reason we must refer, lastly, practical wisdom or insight *(φρόνησις)* and art. These Aristotle distinguishes from knowledge in that they both refer to something that can be otherwise than it is; the former having for its object an action, the latter a creation.[2] He remarks, however, at the same time that they both depend upon right knowledge, and he singles out wisdom especially as one of the intellectual virtues.[3] But that which reveals more clearly than anything else the dependence of reason upon the lower faculties in Aristotle's doctrine

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the necessary and immutable, but with *τὸ ἐνδεχόμενον ἄλλως ἔχειν*, it is *ὑπόληψις τῆς ἀμέσου προτάσεως καὶ μὴ ἀναγκαίας* (*Anal. Post.* i. 33, 89, a, 2; cf. *Metaph.* vii. 15, 1039, b, 31; *Eth.* vi. 3, 1139, b, 18); the contingent, however, can only be known empirically by perception. On the other hand, *ὑπόληψις*, which in reality coincides in meaning with *δόξα* (*Eth. ibid.*; *Top.* vi. 11, 149, a, 10; *Categ.* 7, 8, b. 10; *Anal. Pri.* ii. 21, 66, b, 18, 67, b, 12 sqq. and elsewhere; WAITZ, *Arist. Org.* i. 523), is assigned to *νοῦς*, and *δόξα* is distinguished (*De An.* iii. 3, 428, a, 20) from *φαντασία* by the remark: *δόξῃ μὲν ἕπεται πίστις (οὐκ ἐνδέχεται γὰρ δοξάζοντα οἷς δοκεῖ μὴ πιστεύειν), τῶν δὲ θηρίων οὐθενὶ ὑπάρχει πίστις, φαντασία δὲ πολλοῖς. ἔτι πάσῃ μὲν δόξῃ ἀκολουθεῖ πίστις, πίστει δὲ τὸ πεπεῖσθαι, πειθοῖ δὲ λόγος· τῶν δὲ θηρίων ἐνίοις φαντασία μὲν ὑπάρχει, λόγος δ' οὔ.*

[1] See p. 74, n. 1, *supra.*

[2] *Eth.* vi. 4, 1140, a, 16: *ἐπεὶ δὲ ποίησις καὶ πρᾶξις ἕτερον, ἀνάγκη τὴν τέχνην ποιήσεως ἀλλ' οὐ πράξεως εἶναι.* Thus *τέχνη* is defined (*Eth.* vi. 4) *ἕξις μετὰ λόγου ἀληθοῦς ποιητική*, *φσόνησις* (*ibid.* and c. 5, 1140, a, 3, b, 4) *ἕξις ἀληθὴς μετὰ λόγου πρακτικὴ περὶ τὰ ἀνθρώπῳ ἀγαθὰ καὶ κακά.* On the former see further i. 208, n. 1, *supra*; on the latter *Eth.* vi. 7 sq., c. 11, 1143, a, 8, c. 13, 1143, b, 20, vi. 1152, a, 8; *Polit.* iii. 4, 1277, a, 14, b, 25; and on *ποίησις* and *πρᾶξις* i. 183, n. 1, *supra.* We shall return to both in discussing the Ethics.

[3] See preced. n. and *Rhet.* i. 9, 1366, b. 20: *φρόνησις δ' ἐστὶν ἀρετὴ διανοίας, καθ' ἣν εὖ βουλεύεσθαι δύνανται περὶ ἀγαθῶν καὶ κακῶν τῶν εἰρημένων εἰς εὐδαιμονίαν.*

is his view of the gradual evolution of Knowledge out of Perception and Experience.[1] He remarks, also, that all thoughts are necessarily accompanied by an inner representation or imaginative picture, whose service to Thought is similar to that of the drawn figure to the mathematician. And for this he finds a reason in the inseparable union of insensible Forms with sensible Things.[2] This complete interdependence of reason and sense, however, only makes all the more palpable the gaps which Aristotle's doctrine of Nous leaves between the two.

The same is true also of the practical activity of Reason in the sphere of the Will.[3] Even in the lower irrational animals Desire springs from sensation, for wherever there is sensation there is pleasure and pain, and with these comes Desire, which is indeed nothing else than the effort after what is pleasant.[4] Sensation announces to us in the first place only the existence of an object, and towards this we place ourselves by the feelings of pleasure and pain in definite attitudes of acceptance or refusal. We feel it to be good or bad, and there arises in us in consequence longing or abhorrence—in a word, a Desire.[1] The ultimate ground of this desire lies in 'the practical good,' *i.e.* in that of which the possession or non-possession depends upon our own action. The thought of this good sets the appetitive part of the soul in motion,[2] which in turn through the organs of the body moves the living creature.[3] The inner process by which desire arises

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[1] See i. 205, *supra*.

[2] *De An.* iii. 8; see also *ibid.* c. 7, 431, a, 14: τῇ δὲ διανοητικῇ ψυχῇ τὰ φαντάσματα οἷον αἰσθήματα ὑπάρχει . . . διὸ οὐδέποτε νοεῖ ἄνευ φαντάσματος ἡ ψυχή. b, 2: τὰ μὲν οὖν εἴδη τὸ νοητικὸν ἐν τοῖς φαντάσμασι νοεῖ. *De Mem.* 1, 449, b, 30: ἐπεὶ δὲ . . . νοεῖν οὐκ ἔστιν ἄνευ φαντάσματος· συμβαίνει γὰρ τὸ αὐτὸ πάθος ἐν τῷ νοεῖν ὅπερ καὶ ἐν τῷ διαγράφειν· ἐκεῖ τε γὰρ οὐθὲν προσχρώμενοι τῷ τὸ ποσὸν ὡρισμένον εἶναι τὸ τριγώνου, ὅμως γράφομεν ὡρισμένον κατὰ τὸ ποσόν· καὶ ὁ νοῶν ὡσαύτως, κἂν μὴ ποσὸν νοῇ, τίθεται πρὸ ὀμμάτων ποσὸν, νοεῖ δ' οὐχ ᾗ ποσόν. ἂν δ' ἡ φύσις ᾖ τῶν ποσῶν, ἀόριστον δὲ, τίθεται μὲν ποσὸν ὡρισμένον, νοεῖ δ' ᾗ ποσὸν μόνον.

[3] SCHRADER, *Arist. de Voluntate Doctrina*, Brandenb. 1847. (*Gymn. Progr.*); WALTER, *Die Lehre v. d. prakt. Vernunft in d. griech. Phil.* 1874.

[4] *De An.* ii. 2, 413, b, 23, 3, 414, b, 4; *De Somno*, 1, 454, b, 29; *Part. An.* ii. 17, 661, a, 6; cf. p. 22, n. 1, *supra*.

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[1] *De An.* iii. 7, 431, a. 8: *τὸ μὲν οὖν αἰσθάνεσθαι ὅμοιον τῷ φάναι μόνον καὶ νοεῖν· ὅταν δὲ ἡδὺ ἢ λυπηρὸν, οἷον καταφᾶσα ἢ ἀποφᾶσα, διώκει ἢ φεύγει·* [cf. *Eth.* vi. 2, 1139, a, 21: *ἔστι δ', ὅπερ ἐν διανοίᾳ κατάφασις καὶ ἀπόφασις, τοῦτ' ἐν ὀρέξει δίωξις καὶ φυγή.*] *καὶ ἔστι τὸ ἥδεσθαι καὶ λυπεῖσθαι τὸ ἐνεργεῖν τῇ αἰσθητικῇ μεσότητι πρὸς τὸ ἀγαθὸν ἢ κακὸν, ᾗ τοιαῦτα. καὶ ἡ φυγὴ δὲ καὶ ἡ ὄρεξις τοῦτο* [v. l. *τὸ αὐτὸ*] *ἡ κατ' ἐνέργειαν, καὶ οὐχ ἕτερον τὸ ὀρεκτικὸν καὶ φευκτικὸν, οὔτ' ἀλλήλων οὔτε τοῦ αἰσθητικοῦ· ἀλλὰ τὸ εἶναι ἄλλο.*

[2] All desire, therefore, presupposes a presentation, although the latter must by no means be mistaken for desire. *De An.* iii. 10, 433, a, 9: *φαίνεται δέ γε δύο ταῦτα κινοῦντα, ἢ ὄρεξις ἢ νοῦς, εἴ τις τὴν φαντασίαν τιθείη ὡς νόησίν τινα· πολλὰ γὰρ παρὰ τὴν ἐπιστήμην ἀκολουθοῦσι ταῖς φαντασίαις καὶ ἐν τοῖς ἄλλοις ζῴοις οὐ νόησις οὐδὲ λογισμός ἐστιν, ἀλλὰ φαντασία . . . ὥστε εὐλόγως ταῦτα δύο φαίνεται τὰ κινοῦντα, ὄρεξις καὶ διάνοια πρακτική . . . καὶ ἡ φαντασία δὲ ὅταν κινῇ, οὐ κινεῖ ἄνευ ὀρέξεως.* b, 27: *ᾗ ὀρεκτικὸν τὸ ζῷον, ταύτῃ αὑτοῦ κινητικόν· ὀρεκτικὸν δὲ οὐκ ἄνευ φαντασίας· φαντασία δὲ πᾶσα ἢ λογιστικὴ ἢ αἰσθητική·* [See p. 73, n. 2, *supra.*] *ταύτης μὲν οὖν καὶ τὰ ἄλλα ζῷα μετέχει.* (Cf. c. 11, 434, a, 5.) Phantasy is thus (as SCHRADER, p. 8 sq. and BRENTANO, *Psychol. d. Ar.* 161, also remark) the link which connects our thoughts with the desires and impulses which spring from them. Of the process, however, by which thought thus passes into desire Aristotle gives no further analysis.

[3] *De An.* iii. 10, 433, a, 27: *ἀεὶ κινεῖ μὲν τὸ ὀρεκτὸν* [as was previously proved, l. 14 sqq.] *ἀλλὰ τοῦτ' ἐστὶν ἢ τὸ ἀγαθὸν ἢ τὸ φαινόμενον ἀγαθόν. οὐ πᾶν δὲ, ἀλλὰ τὸ πρακτὸν ἀγαθόν. πρακτὸν δ' ἐστὶ τὸ ἐνδεχόμενον καὶ ἄλλως ἔχειν. ὅτι μὲν οὖν ἡ τοιαύτη δύναμις κινεῖ τῆς ψυχῆς ἡ καλουμένη ὄρεξις, φανερόν . . . ἐπεὶ δ' ἐστὶ τρία, ἓν μὲν τὸ κινοῦν, δεύτερον δ' ᾧ κινεῖ, τρίτον τὸ κινούμενον· τὸ δὲ κινοῦν διττὸν, τὸ μὲν ἀκίνητον, τὸ δὲ κινοῦν καὶ κινούμενον* [cf. i. 389, *supra*]. *ἔστι δὲ τὸ μὲν ἀκίνητον τὸ πρακτὸν ἀγαθὸν, τὸ δὲ κινοῦν καὶ κινούμενον τὸ ὀρεκτικὸν (κινεῖται γὰρ τὸ ὀρεγόμενον ᾗ ὀρέγεται, καὶ ἡ ὄρεξις κίνησίς τίς ἐστιν* [as TRENDELENBURG rightly reads] *ᾗ ἐνέργεια)* [v. l. *ἡ ἐν.*—TORSTR. conjectures *ἡ ἐνεργείᾳ*, but this is unnecessary], *τὸ δὲ κινούμενον τὸ ζῷον· ᾧ δὲ κινεῖ ὀργάνῳ ἡ ὄρεξις, ἤδη τοῦτο σωματικόν ἐστιν.* We

Aristotle represents as a syllogistic conclusion, inasmuch as in each action a given case is brought under a general rule.[1] In order properly to understand how bodily movements spring from will and desire we must recollect that all changes of inner feeling involve a corresponding change in the state of the body.[2] This is more fully developed in the treatise on the *Motion of Animals*. The process by which will follows upon the presentation of the object, is, we are told, a kind of inference. The major premiss is the conception of a general end; the minor premiss is an actual instance coming under the general conception; while the conclusion is the action which issues from the subsumption of the second under the first.[3] Usually, however, the

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shall recur to this at a later point. A good commentary on the passage before us is furnished by *De Motu An.* 6, 700, b, 15 sqq., which is probably modelled upon it.

[1] *Eth.* vi. 5, 1147, a, 25: *ἡ μὲν γὰρ καθόλου δόξα ἡ δ' ἑτέρα περὶ τῶν καθ' ἕκαστά ἐστιν, ὧν αἴσθησις ἤδη κυρία·* [Similarly *De An.* iii. 4, 434, a, 17.] *ὅταν δὲ μία γένηται ἐξ αὐτῶν, ἀνάγκη τὸ συμπερανθὲν ἔνθα μὲν φάναι τὴν ψυχὴν, ἐν δὲ ταῖς ποιητικαῖς πράττειν εὐθὺς. οἷον, εἰ παντὸς γλυκέος γεύεσθαι δεῖ, τουτὶ δὲ γλυκὺ, ὡς ἕν τι τῶν καθ' ἕκαστον, ἀνάγκη τὸν δυνάμενον καὶ μὴ κωλυόμενον ἅμα τοῦτο καὶ πράττειν.* c. 13, 1144, a, 31: *οἱ γὰρ συλλογισμοὶ τῶν πρακτῶν ἀρχὴν ἔχοντές εἰσιν, ἐπειδὴ τοιόνδε τὸ τέλος καὶ τὸ ἄριστον.* Cf. c. 12, 1143, b, 3 (see i. 197, n. 4, *supra*), where a 'minor premiss' is spoken of in reference to action.

[2] *De An.* i. 1, 403, a, 16: *ἔοικε δὲ καὶ τὰ τῆς ψυχῆς πάθη πάντα εἶναι μετὰ σώματος, θυμὸς, πρᾳότης, φόβος, ἔλεος, θάρσος, ἔτι χαρὰ καὶ τὸ φιλεῖν τε καὶ μισεῖν· ἅμα γὰρ τούτοις πάσχει τι τὸ σῶμα.* This is seen in the fact that according to the physical state forcible impressions at one time produce no effect; at another, light impressions produce a deep effect. *ἔτι δὲ τοῦτο μᾶλλον φανερόν· μηθενὸς γὰρ φοβεροῦ συμβαίνοντος ἐν τοῖς πάθεσι γίνονται τοῖς τοῦ φοβουμένου* [in consequence of physical states]. *εἰ δ' οὕτως ἔχει, δῆλον ὅτι τὰ πάθη λόγοι ἔνυλοί εἰσιν. ὥστε οἱ ὅροι τοιοῦτοι οἷον τὸ ὀργίζεσθαι κίνησίς τις τοῦ τοιουδὶ σώματος ἢ μέρους ἢ δυνάμεως ὑπὸ τοῦδε ἕνεκα τοῦδε.* Cf. *Eth. ibid.* 1147, a, 15. and what is said, p. 75, n. 2, on pleasure and pain as events in the *αἰσθητικὴ μεσότης.*

[3] *Mot. An.* 7, 701, a, 7: *πῶς δὲ νοῶν ὁτὲ μὲν πράττει, ὁτὲ δ' οὐ πράττει, καὶ κινεῖται, ὁτὲ δ' οὐ*

syllogism assumes a simpler form by the omission of the obvious minor premiss;[1] while, on the other hand, the usurpation of the place of the major premiss by the demands of desire, in cases when we act without consideration, constitutes rashness.[2] The power of the will, however, to move the organs of our body is here explained as an effect of the heat and cold, which are caused by the feelings of pleasure and pain; these in turn, by the expansion or contraction of particular parts, produce certain changes and movements in the body.[3]

κινεῖται; ἔοικε παραπλησίως συμβαίνειν καὶ περὶ τῶν ἀκινήτων διανοουμένοις καὶ συλλογιζομένοις. ἀλλ' ἐκεῖ μὲν θεώρημα τὸ τέλος . . . ἐνταῦθα δ' ἐκ τῶν δύο προτάσεων τὸ συμπέρασμα γίνεται ἡ πρᾶξις, οἷον ὅταν νόησῃ ὅτι παντὶ βαδιστέον ἀνθρώπῳ, αὐτὸς δ' ἄνθρωπος, βαδίζει εὐθέως. After illustrating this by further examples, Aristotle proceeds, l. 23: *αἱ δὲ προτάσεις αἱ ποιητικαὶ διὰ δύο εἰδῶν γίνονται, διά τε τοῦ ἀγαθοῦ καὶ διὰ τοῦ δυνατοῦ* [the latter perhaps with reference to *Eth.* iii. 5, 1112, b, 24 sqq.].

[1] *Ibid.* l. 25: *ὥσπερ δὲ τῶν ἐρωτώντων ἔνιοι, οὕτω τὴν ἑτέραν πρότασιν τὴν δήλην οὐδ' ἡ διάνοια ἐφιστᾶσα σκοπεῖ οὐδέν· οἷον εἰ τὸ βαδίζειν ἀγαθὸν ἀνθρώπῳ, ὅτι αὐτὸς ἄνθρωπος, οὐκ ἐνδιατρίβει.*

[2] L. 28: *διὸ καὶ ὅσα μὴ λογισάμενοι πράττομεν, ταχὺ πράττομεν. ὅταν γὰρ ἐνεργήσῃ ἢ τῇ αἰσθήσει πρὸς τὸ οὗ ἕνεκα ἢ τῇ φαντασίᾳ ἢ τῷ νῷ, οὗ ὀρέγεται εὐθὺς ποιεῖ· ἀντ' ἐρωτήσεως γὰρ ἢ νοήσεως ἡ τῆς ὀρέξεως γίνεται ἐνέργεια. ποτέον μοι, ἡ ἐπιθυμία λέγει· τοδὶ δὲ ποτὸν ἡ αἴσθησις εἶπεν ἢ ἡ φαντασία ἢ ὁ νοῦς. εὐθὺς πίνει.*

[3] *Ibid.* 701, b, 1: Just as automata, owing to the mechanical adjustment of the cylinders, are set in motion by a slight touch, so with living beings, in whom the bones take the place of wood and iron, the sinews that of the cylinders (cf. also the passage quoted p. 53, n. 2, from *Gen. An.* ii. 5). The impulse, however, in their case is given *αὐξανομένων τῶν μορίων διὰ θερμότητα καὶ πάλιν συστελλομένων διὰ ψύξιν καὶ ἀλλοιουμένων. ἀλλοιοῦσι δ' αἱ αἰσθήσεις καὶ αἱ φαντασίαι καὶ αἱ ἔννοιαι. αἱ μὲν γὰρ αἰσθήσεις εὐθὺς ὑπάρχουσιν ἀλλοιώσεις τινὲς οὖσαι, ἡ δὲ φαντασία καὶ ἡ νόησις τὴν τῶν πραγμάτων ἔχουσι δύναμιν· τρόπον γάρ τινα τὸ εἶδος τὸ νοούμενον τὸ τοῦ θερμοῦ ἢ ψυχροῦ ἢ ἡδεὸς ἢ φοβεροῦ τοιοῦτον τυγχάνει ὂν οἷόν περ καὶ τῶν πραγμάτων ἕκαστον, διὸ καὶ φρίττουσι καὶ φοβοῦνται νοήσαντες μόνον. ταῦτα δὲ πάντα πάθη καὶ ἀλλοιώσεις εἰσίν. ἀλλοιουμένων δ' ἐν τῷ σώματι τὰ μὲν μείζω τὰ δ' ἐλάττω γίνεται. ὅτι δὲ μικρὰ μεταβολὴ γενομένη ἐν ἀρχῇ μεγάλας καὶ πολλὰς ποιεῖ διαφορὰς ἄποθεν, οὐκ ἄδηλον*; a slight movement of the helm produces a great effect upon the bow of a ship, so a small change

Under Will also Aristotle—who, like Plato, does not regard Emotion as a peculiar form of activity—classes all that we should rather place under the latter head. Love, for example, he refers to *θυμὸς*, by which he understands, not only spirit, but also heart.[1]

As Aristotle proceeds, however, Desire is found to bear a different character according as it springs from rational representation or not. Granted that it is always the desirable that causes desire in us, yet the desirable may be either a real or merely an apparent good,[2] and so the desire itself may either spring from rational reflection or be irrational.[3] To the latter class

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in the heart causes flushing, pallor, trembling, &c. over the whole body. C. 8: *ἀρχὴ μὲν οὖν, ὥσπερ εἴρηται, τῆς κινήσεως τὸ ἐν τῷ πρακτῷ διωκτὸν καὶ φευκτόν· ἐξ ἀνάγκης δ᾽ ἀκολουθεῖ τῇ νοήσει καὶ τῇ φαντασίᾳ αὐτῶν θερμότης καὶ ψύξις. τὸ μὲν γὰρ λυπηρὸν φευκτὸν, τὸ δ᾽ ἡδὺ διωκτὸν, . . . ἔστι δὲ τὰ λυπηρὰ καὶ ἡδέα πάντα σχεδὸν μετὰ ψύξεώς τινος καὶ θερμότητος.* So with fear, fright, sexual pleasure, &c. *μνῆμαι δὲ καὶ ἐλπίδες, οἷον εἰδώλοις χρώμενοι τοῖς τοιούτοις, ὁτὲ μὲν ἧττον ὁτὲ δὲ μᾶλλον αἰτίαι τῶν αὐτῶν εἰσίν.* And since the inward parts from which the motion of the limbs proceeds are so arranged that these changes take place very easily in them, the motions follow our thoughts instantaneously. *τὰ μὲν γὰρ ὀργανικὰ μέρη* [accusative] *παρασκευάζει ἐπιτηδείως τὰ πάθη, ἡ δ᾽ ὄρεξις τὰ πάθη. τὴν δ᾽ ὄρεξιν ἡ φαντασία· αὕτη δὲ γίνεται ἢ διὰ νοήσεως ἢ δι᾽ αἰσθήσεως. ἅμα δὲ καὶ ταχύ διὰ τὸ ποιητικὸν καὶ παθητικὸν τῶν πρὸς ἄλληλα εἶναι τὴν φύσιν.*

[1] *Polit.* vii. 7, 1327, b, 40: *ὁ θυμός ἐστιν ὁ ποιῶν τὸ φιλητικόν· αὕτη γάρ ἐστιν ἡ τῆς ψυχῆς δύναμις ᾗ φιλοῦμεν. σημεῖον δέ· πρὸς γὰρ τοὺς συνήθεις καὶ φίλους ὁ θυμὸς αἴρεται μᾶλλον, ἢ πρὸς τοὺς ἀγνῶτας, ὀλιγωρεῖσθαι νομίσας.* Cf. foll pages.

[2] *De An.* iii. 10; see i. 109, n. 3, *supra.*

[3] *De An.* iii. 10, 433, a, 9 (see i. 109, n. 2, *sup.*); 1. 22: *νῦν δὲ ὁ μὲν νοῦς οὐ φαίνεται κινῶν ἄνευ ὀρέξεως· ἡ γὰρ βούλησις ὄρεξις· ὅταν δὲ κατὰ τὸν λογισμὸν κινῆται, καὶ κατὰ βούλησιν κινεῖται. ἡ δ᾽ ὄρεξις κινεῖ παρὰ τὸν λογισμόν. ἡ γὰρ ἐπιθυμία ὄρεξίς τις ἐστίν. νοῦς μὲν οὖν πᾶς ὀρθός· ὄρεξις δὲ καὶ φαντασία καὶ ὀρθὴ καὶ οὐκ ὀρθή.* b, 5: *ἐπεὶ δ᾽ ὀρέξεις γίνονται ἐναντίαι ἀλλήλαις, τοῦτο δὲ συμβαίνει ὅταν ὁ λόγος καὶ ἡ ἐπιθυμία ἐναντίαι ὦσι, γίνεται δ᾽ ἐν τοῖς χρόνου αἴσθησιν ἔχουσιν (ὁ μὲν γὰρ νοῦς διὰ τὸ μέλλον ἀνθέλκειν κελεύει, ἡ δ᾽ ἐπιθυμία διὰ τὸ ἤδη) . . . εἴδει μὲν ἓν ἂν εἴη τὸ κινοῦν, τὸ ὀρεκτικὸν, ᾗ ὀρεκτικὸν, . . . ἀριθμῷ δὲ πλείω τὰ κινοῦντα* *Rhet.* i. 11, 1370, a, 18: *τῶν δὲ*

belong anger and the appetite for sensual gratification.[1] In so far as reason goes to constitute the conception of the end and reacts upon the desire it is called Practical or Deliberative Reason.[2] Desire which is guided by

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ἐπιθυμιῶν αἱ μὲν ἄλογοί εἰσιν αἱ δὲ μετὰ λόγου. Sensual desires are ἄλογοι, μετὰ λόγου δὲ ὅσα ἐκ τοῦ πεισθῆναι ἐπιθυμοῦσιν. *Polit.* iii. 4, 1277, a, 6: ψυχὴ ἐκ λόγου καὶ ὀρέξεως. *Ibid.* vii. 15, 1334, b, 18: τῆς ψυχῆς ὁρῶμεν δύο μέρη, τό τε ἄλογον καὶ τὸ λόγον ἔχον, καὶ τὰς ἕξεις τὰς τούτων δύο τὸν ἀριθμόν, ὧν τὸ μέν ἐστιν ὄρεξις τὸ δὲ νοῦς. Cf. foll. note.

[1] Following Plato, Aristotle often opposes these two forms of ρεξις ἄλογος to one another; *Rhet.* i. 10 (see p. 114, n. 3, *infra*). *De An.* ii. 3, 414, b, 2: ὄρεξις μὲν γὰρ ἐπιθυμία καὶ θυμὸς καὶ βούλησις (ἐπιθυμία is then defined as ὄρεξις τοῦ ἡδέος); iii. 9, 432, b, 5: ἔν τε τῷ λογιστικῷ γὰρ ἡ βούλησις γίνεται, καὶ ἐν τῷ ἀλόγῳ ἡ ἐπιθυμία καὶ ὁ θυμός. *Eth.* iii. 4, 1111, b, 10: while προαίρεσις is neither ἐπιθυμία nor θυμὸς, since both the latter belong also to irrational beings, but the former does not. *Polit.* vii. 15 (see p. 114, n. 3, *infra*), cf. *Mot. An.* 6, 700, b, 22, c. 7, 701, a, 32; *Eth. Eud.* ii. 7, 1223, a, 26; *M. Mor.* i. 12, 1187, b, 36. In the *Topics* (ii. 7, 113, a, 35 sq., iv. 5, 126, a, 8, v. 1, 129, a, 10) the Platonic division of the λογιστικὸν, θυμοειδὲς and ἐπιθυμητικὸν is employed as one which is generally recognised, and *Eth.* vii. 7, 1149, a, 24 follows Plato in the remark (*Ph. d. Gr.* i. 714) that it is less disgraceful to be unable to rule θυμὸς than the desires: ἔοικε γὰρ ὁ θυμὸς ἀκούειν μέν τι τοῦ λόγου, παρακούειν δέ; it yields to the first impulse to τιμωρία given by the reason without awaiting its fuller commands: ἐπιθυμία, on the other hand, makes for pleasure the moment that λόγος or αἴσθησις declares anything to be pleasant. Nevertheless in the stricter psychological discussion, *De An.* iii. 9, 432, a, 18 sqq., Aristotle rejects the view that the λογιστικὸν, θυμικὸν and ἐπιθυμητικὸν are the three parts of the soul which produce motions, partly because the distinction between them is less than, *e.g.*, that between the θρεπτικὸν and αἰσθητικὸν, and partly because the ὀρεκτικὸν cannot thus be divided and the soul made to consist of three separate parts.—Aristotle gives no more accurate definition of θυμός; even P. Meyer's minute discussion of the passages that bear upon it (Ὁ θυμὸς *ap. Arist. Platonemque*, Bonn, 1876) arrives at conclusions as unsatisfactory as the shorter one by Walter, *ibid.* 199 sqq. on the customary meaning of the word. According to this, it indicates as a rule the passions which prompt to the avoidance or retaliation of injuries. Nevertheless the tenderer emotions are also assigned to it; cf. p. 112, n. 1.

[2] *De An.* iii. 10, 433, a, 14: νοῦς δὲ [sc. κινητικὸν] ὁ ἕνεκά του λογιζόμενος καὶ ὁ πρακτικός· διαφέρει δὲ τοῦ θεωρητικοῦ τῷ τέλει. καὶ ἡ ὄρεξις ἕνεκά του πᾶσα· οὗ γὰρ ἡ ὄρεξις, αὕτη ἀρχὴ τοῦ πρακτικοῦ νοῦ· τὸ δ' ἔσχατον ἀρχὴ τῆς πρά-

reason Aristotle, with Plato,[1] calls Will in the narrower sense of the word,[2] appropriating the name Desire to its irrational exercise.[3] The latter stands in a twofold relation to reason. On the one hand, it is intended to submit to it, and by this obedience to obtain a share in it. On the other hand, being in its own nature irrational it resists the demands of reason, and often overpowers them.[4] Between these two kinds of impulse stands man with his Free Will; for that we

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ξεως. ὥστε εὐλόγως ταῦτα δύο φαίνεται τὰ κινοῦντα, ὄρεξις καὶ διάνοια πρακτική. See further, p. 109, n. 5, *sup.* Cf. c. 9, 432, b, 27. *Eth.* vi. 2, 1139, a, 6: *ὑποκείσθω δύο τὰ λόγον ἔχοντα, ἓν μὲν ᾧ θεωροῦμεν τὰ τοιαῦτα τῶν ὄντων, ὅσων αἱ ἀρχαὶ μὴ ἐνδέχονται ἄλλως ἔχειν, ἓν δὲ ᾧ τὰ ἐνδεχόμενα· πρὸς γὰρ τὰ τῷ γένει ἕτερα καὶ τῶν τῆς ψυχῆς μορίων ἕτερον τῷ γένει τὸ πρὸς ἑκάτερον πεφυκός . . . λεγέσθω δὲ τούτων τὸ μὲν ἐπιστημονικὸν τὸ δὲ λογιστικόν. τὸ γὰρ βουλεύεσθαι καὶ λογίζεσθαι ταὐτὸν, οὐθεὶς δὲ βουλεύεται περὶ τῶν μὴ ἐνδεχομένων ἄλλως ἔχειν.* L. 26: *αὕτη μὲν οὖν ἡ διάνοια καὶ ἡ ἀλήθεια πρακτική, τῆς δὲ θεωρητικῆς διανοίας καὶ μὴ πρακτικῆς μηδὲ ποιητικῆς τὸ εὖ καὶ κακῶς τἀληθές ἐστι καὶ ψεῦδος· τοῦτο γάρ ἐστι παντὸς διανοητικοῦ ἔργον, τοῦ δὲ πρακτικοῦ καὶ διανοητικοῦ ἡ ἀλήθεια ὁμολόγως ἔχουσα τῇ ὀρέξει τῇ ὀρθῇ.* L. 35: *διάνοια δ' αὐτὴ οὐθὲν κινεῖ, ἀλλ' ἡ ἕνεκά του καὶ πρακτική.* *Ibid.* c. 12, 1143, b, 1; see p. 197, n. 4, *supra.* *Polit.* vii. 14, 1333, a, 24: *διῄρηταί τε διχῇ [τὸ λόγον ἔχον], καθ' ὅν περ εἰώθαμεν τρόπον διαιρεῖν· ὁ μὲν γὰρ πρακτικός ἐστι λόγος ὁ δὲ θεωρητικός.* Cf. p. 106, n. 2, *sup.* For a closer view of the practical reason and the activity which proceeds from it see ch. xii. part 2, *infra.*

[1] *Ph.d. Gr.* i. p. 505.

[2] 'Practical reason' itself must not be mistaken for 'will,' which, to Aristotle, is essentially a desire; the former is merely thought in relation to action.

[3] *De An.* iii. 10, 433, a, 22 sqq. (see p. 112, n. 3, *supra*), and c. 11, 434, a, 12 (see foll. n.), where *βούλησις* is opposed to *ὄρεξις*, *Rhet.* i. 10, 1369, a, 2: *ἔστι δ' ἡ μὲν βούλησις ἀγαθοῦ ὄρεξις (οὐθεὶς γὰρ βούλεται ἀλλ' ἢ ὅταν οἰηθῇ εἶναι ἀγαθὸν) ἄλογοι δ' ὀρέξεις ὀργὴ καὶ ἐπιθυμία.* *Eth.* v. 11, 1136, b, 7: *οὔτε γὰρ βούλεται οὐθεὶς ὃ μὴ οἴεται εἶναι σπουδαῖον, ὅ τε ἀκρατὴς οὐχ ἃ οἴεται δεῖν πράττειν πράττει.* See further, p. 113, n. 1. Cf. PLATO'S statements, *Ph.d.Gr.* i. p. 505, and p. 719, 3. At other times the word has a wider meaning, as *Polit.* vii. 15, 1334, b, 22 (*θυμὸς γὰρ καὶ βούλησις ἔτι δὲ ἐπιθυμία καὶ γενομένοις εὐθὺς ὑπάρχει τοῖς παιδίοις*). In *Eth.* iii. 6, both meanings are concerned, where to the question whether *βούλησις* has reference to the good or to the apparently good, the reply is given that *per se*, and in a virtuous man, it is to the former alone; in a bad man, to the latter.

[4] *Eth.* i. 13, 1102, b, 13: we

are the authors of our own actions, and that it lies in our own power to be good or bad,[1] is Aristotle's firm

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must distinguish in the soul a rational and an irrational part. The latter, however, is of two kinds. The one of its constituent parts, the nutritive soul, has nothing to do with action; *ἔοικε δὲ καὶ ἄλλη τις φύσις τῆς ψυχῆς ἄλογος εἶναι, μετέχουσα μέντοι πῃ λόγου.* Both in the temperate and the intemperate man, reason operates on the one hand; *φαίνεται δ' ἐν αὐτοῖς καὶ ἄλλο τι παρὰ τὸν λόγον πεφυκὸς, ὃ μάχεταί τε καὶ ἀντιτείνει τῷ λόγῳ. ἀτεχνῶς γὰρ καθάπερ τὰ παραλελυμένα τοῦ σώματος μόρια εἰς τὰ δεξιὰ προαιρουμένων κινῆσαι τοὐναντίον εἰς τὰ ἀριστερὰ παραφέρεται, καὶ ἐπὶ τῆς ψυχῆς· ἐπὶ τἀναντία γὰρ αἱ ὁρμαὶ τῶν ἀκρατῶν . . . καὶ ἐν τῇ ψυχῇ νομιστέον εἶναί τι παρὰ τὸν λόγον, ἐναντιούμενον τούτῳ καὶ ἀντιβαῖνον . . . λόγου δὲ καὶ τοῦτο φαίνεται μετέχειν, ὥσπερ εἴπομεν· πειθαρχεῖ γοῦν τῷ λόγῳ τὸ τοῦ ἐγκρατοῦς . . . φαίνεται δὴ καὶ τὸ ἄλογον διττόν. τὸ μὲν γὰρ φυτικὸν οὐδαμῶς κοινωνεῖ λόγου, τὸ δ' ἐπιθυμητικὸν καὶ ὅλως ὀρεκτικὸν μετέχει πως, ᾗ κατήκοόν ἐστιν αὐτοῦ καὶ πειθαρχικόν . . . ὅτι δὲ πείθεταί πως ὑπὸ λόγου τὸ ἄλογον, μηνύει καὶ ἡ νουθέτησις καὶ πᾶσα ἐπιτίμησίς τε καὶ παράκλησις. εἰ δὲ χρὴ καὶ τοῦτο φάναι λόγον ἔχειν, διττὸν ἔσται καὶ τὸ λόγον ἔχον, τὸ μὲν κυρίως καὶ ἐν αὑτῷ, τὸ δ' ὥσπερ πατρὸς ἀκουστικόν τι.* *Polit.* vii 14, 1333, a, 16: *διῄρηται δὲ δύο μέρη τῆς ψυχῆς, ὧν τὸ μὲν ἔχει λόγον καθ' αὑτὸ, τὸ δ' οὐκ ἔχει μὲν καθ' αὑτὸ, λόγῳ δ' ὑπακούειν δυνάμενον.* *De An.* iii. 11, 434, a, 12: *νικᾷ δ' ἐνίοτε* [*ἡ ὄρεξις*] *καὶ κινεῖ τὴν βούλησιν· ὁτὲ δ' ἐκείνη ταύτην, ὥσπερ σφαῖρα* [v. l. *-αν*] *ἡ ὄρεξις τὴν ὄρεξιν, ὅταν ἀκρασία γένηται. φύσει δὲ ἀεὶ ἡ ἄνω ἀρχικωτέρα καὶ κινεῖ, ὥστε τρεῖς φορὰς ἤδη κινεῖσθαι.* The various attempts made to explain and amend the last passage by TRENDELENBURG and TORSTRIK, *in loco*, BRENTANO, *Psychol. d. Ar.* 111 sq., and the Greek commentators (discussed in Tren.), it is the more justifiable here to omit as the thought expressed is clear enough. Departing from previous editions, Zeller would now suggest: . . . *ὁτὲ δ' ἐκείνη ταύτην, ὥσπερ ἡ ἄνω σφαῖρα τὴν κάτω, ὁτὲ δ' ἡ ὄρεξις . . . γένηται* [*φύσει . . . κινεῖ*], *ὥστε*, &c. Aristotle's doctrine differs from that of Plato as presented *Ph. d. Gr.* i. 713 sq., only in this, that in place of the Platonic *θυμὸς* we have here the appetites as a whole.

[1] *Eth.* iii. 7, 1113, b, 6: *ἐφ' ἡμῖν δὲ καὶ ἡ ἀρετὴ, ὁμοίως δὲ καὶ ἡ κακία. ἐν οἷς γὰρ ἐφ' ἡμῖν τὸ πράττειν, καὶ τὸ μὴ πράττειν, καὶ ἐν οἷς τὸ μὴ, καὶ τὸ ναί· ὥστ' εἰ τὸ πράττειν καλὸν ὂν ἐφ' ἡμῖν ἐστι, καὶ τὸ μὴ πράττειν ἐφ' ἡμῖν ἔσται αἰσχρὸν ὂν, καὶ εἰ τὸ μὴ πράττειν καλὸν ὂν ἐφ' ἡμῖν, καὶ τὸ πράττειν αἰσχρὸν ὂν ἐφ' ἡμῖν. εἰ δ' ἐφ' ἡμῖν τὰ κακὰ πράττειν καὶ τὰ αἰσχρὰ, ὁμοίως δὲ καὶ τὸ μὴ πράττειν, τοῦτο δ' ἦν τὸ ἀγαθοῖς καὶ κακοῖς εἶναι, ἐφ' ἡμῖν ἄρα τὸ ἐπιεικέσι καὶ φαύλοις εἶναι . . . ἢ τοῖς γε νῦν εἰρημένοις ἀμφισβητητέον, καὶ τὸν ἄνθρωπον οὐ φατέον ἀρχὴν εἶναι οὐδὲ γεννητὴν τῶν πράξεων, ὥσπερ καὶ τέκνων; εἰ δὲ ταῦτα* [if he is author of his own actions] *φαίνεται καὶ μὴ ἔχομεν εἰς ἄλλας ἀρχὰς ἀναγαγεῖν παρὰ τὰς ἐφ' ἡμῖν, ὧν καὶ αἱ ἀρχαὶ ἐν*

conviction, which he supports by the recognised voluntariness of virtue,[1] and by the moral responsibility which is presupposed in legislation and in the judgment universally passed in rewards and punishments, praise and blame, exhortation and warning.[2] In the case of settled moral states, it is true that he believes it to be partly otherwise. These in their beginnings, indeed, depend upon ourselves; but when we have once become good or bad it is just as little in our power not to be so, as when we are sick to be well.[3] In like manner he admits that when the will has once acquired a definite bent, the external action necessarily follows.[4] But when it is said that all desire what seems good to them, and that they are not responsible for this seeming, Aristotle refuses to admit it, since even the disposition which determines our moral judgments is our own creation.[5] Nor does he regard with more favour the attempt to prove from the nature of the disjunctive judgment the

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ἡμῖν καὶ αὐτὰ ἐφ' ἡμῖν καὶ ἑκούσια. c. 5, 1112, b, 31: *ἔοικε δὴ, καθάπερ εἴρηται, ἄνθρωπος εἶναι ἀρχὴ τῶν πράξεων*, and elsewhere. On Aristotle's doctrine of the freedom of the will, see SCHRADER, *ibid.*; TRENDELENBURG, *Histor. Beitr.* ii. 149 sqq.

[1] Aristotle frequently makes use of this argument, accusing the dictum of Socrates and Epicharmus, *οὐθεὶς ἑκὼν πονηρὸς οὐδ' ἄκων μάκαρ* (on which see *Ph. d. Gr.* i 462, 5, iii. b, 119, 2, cf. 719, 3), of the inconsistency of declaring good to be voluntary, evil involuntary; *Eth.* iii. 7, 1113, b, 14, 1114, b, 12 sqq.

[2] *Eth. ibid.* 1113, b, 21, 1114, a, 31, where this is fully discussed and the question investigated how far and in what cases we are irresponsible for ignorance or mental and bodily defects, and how far, on the other hand, we are responsible for them as in themselves culpable.

[3] *Eth.* iii. 7, 8, 1114, a, 12 sqq., b, 30, cf. v. 13, 1137, a, 4, 17: particular just and unjust actions are voluntary and easy, but *τὸ ὡδὶ ἔχοντας ταῦτα ποιεῖν οὔτε ῥᾴδιον οὔτ' ἐπ' αὐτοῖς.*

[4] *Metaph.* ix. 5, see i. 385, n. 2, *supra.*

[5] *Ibid.* iii. 7, 1114, a, 31 sqq. The question how far it is possible consciously to commit a mistake is more fully discussed in the *Ethics.* See *infra.*

logical impossibility of a contingent result.[1] On the contrary, he regards voluntariness as an essential condition of all action that is the subject of moral judgment;[2] and if this does not exhaust the conception of volition (for Aristotle calls the actions of children and even of animals voluntary),[3] at least without voluntariness no volition is possible. If all that is voluntary is not also intentional, yet all that is intentional must needs be voluntary.[1] It is in his view the intention upon which in the first instance the moral quality of an act depends.[2] In like manner deliberation is only possible with reference to those things which lie within our own power.[3] Aristotle, however, has not attempted to indicate more exactly the inner processes by which free volition operates, nor to solve all the difficulties which surround the doctrine of the Freedom of the Will. The credit of first clearly perceiving these points belongs to the Stoics, while it has been left to modern philosophy fully to appreciate their force.

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[1] See i. 230, n. 4, *supra*. It has already been there shown that Aristotle does not hereby avoid all difficulties; but this only shows more clearly how important he regarded it to rescue the possibility of voluntary actions.

[2] *Eth.* iii. 1 *init.*: τῆς ἀρετῆς δὴ περὶ πάθη τε καὶ πράξεις οὔσης, καὶ ἐπὶ μὲν τοῖς ἑκουσίοις ἐπαίνων καὶ ψόγων γινομένων, ἐπὶ δὲ τοῖς ἀκουσίοις συγγνώμης, &c. In c. 1–3, cf. v. 10, 1135, a, 23 sqq. τὸ ἑκούσιον and ἀκούσιον are fully discussed. According to the account here given, that is involuntary which is done under compulsion or in ignorance. We must distinguish, however, in the former between physical compulsion, which constitutes absolute involuntariness, and moral compulsion, which is only relative; in the latter, between unconscious action (ἀγνοοῦντα ποιεῖν), which may also be voluntary (as when something is done in haste or anger), and action from ignorance (δι' ἄγνοιαν πράττειν). As, further, there are many things on which an action depends (nearly corresponding to the familiar *quis*, *quid*, *ubi*, &c., Aristotle mentions: τίς καὶ τί καὶ περὶ τί ἢ ἐν τίνι πρᾶττει, ἐνίοτε δὲ καὶ τίνι, οἷον ὀργάνῳ καὶ ἕνεκα τίνος), we must ask to which of these the ignorance refers: the action being involuntary in the highest degree when the mistake concerns the essential points of its aim and object. Finally, it makes a difference, according to Aristotle, whether an action committed in ignorance is matter of regret or not; if the doer does not regret it he acquiesces in it, so that while it cannot be regarded as voluntary, it is not involuntary in the sense of being against his will (c. 2 *init.* and *fin.*; cf. vii. 8, 1150, a, 21, c. 9 *init.*). On the other hand, that is (c. 3 *init.*) ἑκούσιον οὗ ἡ ἀρχὴ ἐν αὐτῷ εἰδότι τὰ καθ' ἕκαστα ἐν οἷς ἡ πρᾶξις, or (1135, a, 23) ὃ ἄν τις τῶν ἐφ' αὑτῷ ὄντων εἰδὼς καὶ μὴ ἀγνοῶν πράττῃ μήτε ὃν μήτε ᾧ μήτε οὗ ἕνεκα. Cf. *Rhet.* i. 10, 1368, b, 9: ἑκόντες δὲ ποιοῦσιν ὅσα εἰδότες καὶ μὴ ἀναγκαζόμενοι. On the other hand, deliberation is not a necessary condition of voluntariness: on the contrary, Aristotle expressly denies that passion and emotion destroy the voluntariness of an action.

[3] *Eth.* iii. 3, 4, 1111, a, 24, b, 8. Will, however, in the stricter sense (see p. 114, n. 3, *supra*), cannot be attributed to either of them.

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[1] *Eth.* iii. 4, 1111, b, 6: *ἡ προαίρεσις δὴ ἑκούσιον μὲν φαίνεται, οὐ ταὐτὸν δὲ, ἀλλ' ἐπὶ πλέον τὸ ἑκούσιον· τοῦ μὲν γὰρ ἑκουσίου καὶ παῖδες καὶ τἆλλα ζῷα κοινωνεῖ, προαιρέσεως δ' οὒ, καὶ τὰ ἐξαίφνης ἑκούσια μὲν λέγομεν, κατὰ προαίρεσιν δ' οὔ.* 1112, a, 14: *ἑκούσιον μὲν δὴ φαίνεται* [*ἡ προαίρεσις*], *τὸ δ' ἑκούσιον οὐ πᾶν προαιρετόν.* (So also *Rhet. ibid.*: *ὅσα μὲν οὖν ἑκόντες* [sc. *ποιοῦσιν*], *οὐ πάντα προαιρούμενοι, εἰδότες ἅπαντα.*) Aristotle then further distinguishes *προαίρεσις* from *ἐπιθυμία*, *θυμὸς*, *βούλησις* (by which he here means *wish*, rather than *will* as it is directed towards what is impossible and beyond our power) and *δόξα* (or, more accurately, a certain kind of *δόξα*, e.g. right opinion upon what is right, what is to be feared, &c., and generally upon practical questions); its characteristic mark is deliberation (c. 5, 1113, a, 2: *βουλευτὸν δὲ καὶ προαιρετὸν τὸ αὐτὸ, πλὴν ἀφωρισμένον ἤδη τὸ προαιρετόν· τὸ γὰρ ἐκ τῆς βουλῆς προκριθὲν προαιρετόν ἐστιν*); accordingly, *τὸ προαιρετὸν* is defined as *βουλευτὸν ὀρεκτὸν τῶν ἐφ' ἡμῖν*, and *προαίρεσις* as *βουλευτικὴ ὄρεξις τῶν ἐφ' ἡμῖν* (*ibid.* l. 9 sq.); *ἐκ τοῦ βουλεύσασθαι γὰρ κρίναντες ὀρεγόμεθα κατὰ τὴν βούλευσιν.* The same description is repeated *Eth.* vi. 2, 1139, a, 23, cf. v. 10, 1135, b, 10 (*προελόμενοι μὲν* [*πράττομεν*] *ὅσα προβουλευσάμενοι, ἀπροαίρετα δὲ ὅσα ἀπροβούλευτα*). On the other hand, *ὄρεξις* in the narrower sense of mere irrational desire is said *De An.* iii. 11, 434, a, 12, cf. l. 5 sq., to be without part in *τὸ βουλευτικόν.*

[2] *Τῷ γὰρ προαιρεῖσθαι τἀγαθὰ ἢ τὰ κακὰ ποιοί τινές ἐσμεν* (*ibid.* c. 4, 1112, a, 1).

[3] *Βουλευόμεθα δὲ περὶ τῶν ἐφ' ἡμῖν πρακτῶν*, *ibid.* c. 5, 1112, a, 30. Aristotle further shows (1112, b, 11 sqq. vii. 9, 1151, a, 16) that deliberation deals, not with the end, but with the means. We set ourselves an end and then ask, just as in mathematical analysis, what are the conditions under which it may be attained; we next inquire what is required to create these conditions, and so on until we arrive by a process of analysis at the first condition of the desired result which lies in our power. With the knowledge of this condition, deliberation ceases; with the endeavour to realise it, action begins. Cf. TRENDELENBURG, *Histor. Beitr.* ii. 381 sq.; WALTER, *Lehre v. d. prakt. Vern.* 220 sq.

Before going on, however, to examine from the point of view of the Aristotelian Ethics the forms of activity which proceed from free self-determination, there are some anthropological questions which still demand investigation. These have been already touched upon, but only now admit of a complete survey.

As Aristotle recognises in the collective sphere of animate existence a progressive evolution to ever higher forms of life, so he regards the life of the human soul from the same point of view. Man unites in himself every form of life. To the nutritive life he adds the power of sensation and motion, and to these again the life of reason. Thought rises in him from sensation to memory and imagination, and thence to reflexion and the highest stage of the pure intuitions of the reason; action, from sensual desires, to rational will. He is capable not merely of perception and experience, but also of art and science. He raises himself in moral action above animal desire just as in the latter he transcends the merely vegetable processes of nutrition and propagation. Aristotle accordingly sums up his whole doctrine of the Soul in a single sentence: the Soul is in a certain sense all Actuality, inasmuch as it unites in itself the sensual and the spiritual, and thus contains the Form of both[1]—a description which applies especially, of course, to the soul of man. But just as we found it to be a defect in Plato's theory that he was unable to find any inner principle of unity in the three parts into which he had divided the soul, and that he undoubtedly failed to propound this problem with scientific accuracy,[1] so we have to regret in Aristotle a similar omission. The relation between the sensitive and nutritive life might itself have suggested the question whether the latter is an evolution from the former, or whether they come into existence simultaneously, and subsist side by side separate from one another. And where, if the latter be the case, are we to look for the connection between them and the unity of animal life? This difficulty, however, is still more pressing in reference to Reason and its relation to the lower faculties of the soul. Whether we regard the beginning, progress, or end of their union, everywhere we find the same unsolved dualism; nowhere do we meet with any satisfactory answer to the question[2] where we are to look for the unifying principle of personality—the one power which governs while it unites all the other parts of the soul.[3] The birth of the soul, speaking generally, coincides, according to Aristotle, with that of the body whose entelechy it is. He not only rejects any assumption of pre-existence, but he expressly declares that the germ of the life of the soul is contained in the male semen and passes with it from the begetter into the begotten.[4] But, on the other hand, he is unable to apply this to the rational part of the soul, since that is something wholly different from the principle of life in the body. While, therefore, it is held that the germ of this also is propagated in the seed, it is yet asserted [1] at the same time that it alone enters man from without,[2] and is not involved in his physical life.[3] But how an immaterial principle which has absolutely nothing in common with the body and possesses no bodily organ can be said to reside in the semen and propagate itself through it, is wholly incomprehensible [4]—not to mention the fact that not one word is anywhere said of the time or manner of its entrance into it. Nor can this difficulty be met by the assumption that the Spirit proceeds direct from God,[5] whether we regard its origin as an event necessarily following the operation of natural laws, or as in each case the effect of a creative act of the Divine Will.[6] For the former view, which coincides more or less with the doctrine of Emanation, there is not only no support whatsoever in Aristotle's system, but it is wholly irreconcilable with his view of the unchangeable and transcendent nature of God.[1] The assumption, on the other hand, of the creation of the human spirit by the Deity conflicts with Aristotle's express and emphatic statement[2] that God does not interfere actively in the world by an exercise of will.[3] Aristotle says, moreover, as distinctly as possible, that the spirit is exempt from birth no less than from death, thus attributing to it pre-existence,[4] though in a certain impersonal sense. It was impossible, accordingly, that the question how and by whom it was produced at the birth of the body should have even been raised by him. Even upon the only question that could arise—the question regarding the causes which determine the spirit's union with a human body, and with *this* particular body in each particular case, and regarding the way in which this union takes place—Aristotle's writings contain not a single word; whether it be that this question never suggested itself to him, or that he

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[1] See vol. i. p. 199, n. 2, *supra*.

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[1] *Ph. d. Gr.* i. pp. 717 sq.

[2] Which Aristotle, however, does not forget to put to Plato; see p. 23, n. 1, *supra.*

[3] Even SCHELL's attempt (*Die Einheit des Seelenlebens aus d. Principien d. arist. Phil. entwickelt.* Freib. 1873) to prove the complete consistency of the Aristotelian doctrine is wholly unsuccessful. Detailed criticism of it may here be omitted without prejudice to the following investigation.

[4] See p. 10, n. 1, p. 6, n. 2, p. 53, n. 3, and p. 96, n. 1, *supra.*

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[1] See p. 96, n. 1, 2, *supra*.

[2] It enters the womb, indeed, in the seed, but comes to the latter *θύραθεν*, as is clearly explained in the passages quoted, p. 96, n, 1, *Gen. An.* ii. 3, 736, b, 15 sqq.

[3] **Χωριστὸς** (*Gen. An.* ii. 3, 737, a, 9; *De An.* iii. 5; see p. 96, n. 1, and p. 98, n. 1, *sup.*), which here, as perhaps also in Plato's account of the Ideas, means not merely separable but actually separate, the equivalent phrase *οὐθὲν γὰρ αὐτοῦ τῇ ἐνεργείᾳ κοινωνεῖ σωματικὴ ἐνέργεια* being used for it, 739, a, 28.

[4] We cannot conceive of an immaterial being occupying a position in space, nor is the relation of the active force to the implement it employs, which is used to explain the union of soul and body (p. 3, n. 2, *supra*), applicable to the reason, which has no such implement. Cf. p. 94, n. 2, and p. 100, n. 2.

[5] BRANDIS, *Gr.-Röm. Phil.* ii. b. 1178.

[6] The latter view, that of the so-called 'creationists,' was not only generally assumed by mediæval Aristotelians as undoubtedly Aristotle's, but is accepted by BRENTANO, *Psychol. d. Ar.* 195 sqq, whom HERTLING, *Mat. und Form*, 170 (more cautiously also L. SCHNEIDER, *Unsterblichkeitslehre d. Arist.* 54 sq.), is inclined to follow. According to BREN., 'the spiritual part is created out of nothing by the immediate act

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of God, and at the same time the character of a human body is given to the material part' (p. 199); the reason is produced by God from nothing at the moment at which the fœtus in its natural development reaches the last stage (which, according to n. 2, preceding page, must be at a point of time previous at any rate to the procreative act); see also p. 203.

[1] Cf. also i. 413 sqq. Still less of course can we, with GROTE (*Arist.* ii. 220, 230), regard the absolutely immaterial spirit to be an effluence from the æther, the *θεῖον σῶμα*.

[2] On which see i. 399 sq.

[3] As is rightly remarked also by BIEHL (*Ueb. d. Begriff νοῦς b. Arist.* Linz, 1864; *Gymn.-Progr.* p. 9).

[4] Cf. the passages quoted, p. 96, n. 1, and p. 101, n. 2, *sup.* The obvious meaning of these passages cannot justly be set aside upon the general grounds advocated by BRENTANO, p. 196 sq., which find no support either in the psychology of Aristotle or in

regarded it as insoluble and preferred to leave it alone.[1] Nor is he more explicit with regard to the question of the origin of the 'Passive Reason,' whose existence is said to begin and end with that of the body.[2] Although we should naturally assume that he regards it as the outcome of the union of the active spirit with the faculty of reproductive imagination, yet he gives us no hint to help us to form a definite conception of its origin.[3]

If we further examine the union in man of different faculties, we find it difficult to understand how in one being two parts can be united, of which the one is exposed to passive states, the other incapable of passivity; the former bound up with the body, the latter without a physical organ. Does Reason, we may ask, participate in the physical life and the mutation of the lower faculties, or do the latter participate in the immutability and impassiveness of Reason? We might find support for both assumptions in Aristotle's writings, yet each in turn can be shown to be inconsistent with the presuppositions of his philosophy. On the

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any rightly interpreted statement to be found in his texts.

[1] The words, *Gen An.* ii. 3, 736, b, 5, to which BRENTANO, 195, calls attention, point rather to this: διὸ καὶ περὶ νοῦ, πότε καὶ πῶς μεταλαμβάνει καὶ πόθεν τὰ μετέχοντα ταύτης τῆς ἀρχῆς, ἔχει τ' ἀπορίαν πλείστην καὶ δεῖ προθυμεῖσθαι κατα δύναμιν λαβεῖν καὶ καθόσον ἐνδέχεται.

[2] Cf. p. 98, n. 2.

[3] SCHLOTTMANN (*Das Vergängliche und Unvergängliche in d. menschl. Seele nach Arist.* Halle, 1873, p. 46 sq.) supposes the passive reason to be a radiation of the active on its entry into the body. This assumption, however, finds no support in any statement of Aristotle or in his system as a whole. According to Aristotelian principles, the reason, like all immaterial and unmoved being, can promote the development of other things by solicitation, but cannot develop anything else from itself.

one hand, in his account of 'Passive Reason'[1] the qualities of the perishable parts of the soul are transferred to Reason; while, on the other hand, just as immaterial Form in general or the motive power as such is said to be itself unmoved,[2] so Aristotle denies movement and change not only to Reason, but also to the Soul in general.[3] The conception of the Passive Reason, in fact, concentrates in itself all the contradictions we are at present considering.[4] The motionless-ness of the lower faculties of the soul is contradicted among other things[1] by what has just been said about the characteristic difference between them and Reason. For how can they be susceptible of impression when they are wholly excluded from movement and change, seeing that every impression involves a change?[2]

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[1] See p. 96 sqq. *supra*.

[2] See the passage already quoted, p 5, from *De An.* i. 3, 4. Aristotle opens the discussion at the beginning of c. 3 with the explanation that not only is it not true to say that the soul can, from its nature, be an ἑαυτὸ κινοῦν, ἀλλ' ἕν τι τῶν ἀδυνάτων τὸ ὑπάρχειν αὐτῇ κίνησιν. Of the arguments by which this is proved, the first (406, a, 12) is to Aristotle completely convincing: τεσσάρων δὲ κινήσεων οὐσῶν, φορᾶς, ἀλλοιώσεως, φθίσεως, αὐξήσεως, ἢ μίαν τούτων κινοῖτ' ἂν ἢ πλείους ἢ πάσας. εἰ δὲ κινεῖται μὴ κατὰ συμβεβηκὸς, φύσει ἂν ὑπάρχοι κίνησις αὐτῇ. εἰ δὲ τοῦτο καὶ τόπος· πᾶσαι γὰρ αἱ λεχθεῖσαι κινήσεις ἐν τόπῳ. εἰ δ' ἐστὶν ἡ οὐσία τῆς ψυχῆς τὸ κινεῖν ἑαυτὴν, οὐ κατὰ συμβεβηκὸς αὐτῇ τὸ κινεῖσθαι ὑπάρχει. After proving in detail how impossible it is that the soul should move, and especially that it should move in space, Aristotle returns, c. 4, 408, a, 30, once more to the original question and declares that it is impossible that the soul should be self-moving; it can move and be moved only κατὰ συμβεβηκὸς, οἷον κινεῖσθαι μὲν ἐν ᾧ ἐστὶ, τοῦτο δὲ κινεῖσθαι ὑπὸ τῆς ψυχῆς· ἄλλως δ' οὐχ οἷόν τε κινεῖσθαι κατὰ τόπον αὐτήν. It might, indeed, appear that it moves itself. φαμὲν γὰρ τὴν ψυχὴν λυπεῖσθαι χαίρειν θαρρεῖν φοβεῖσθαι, ἔτι δὲ ὀργίζεσθαί τε καὶ αἰσθάνεσθαι καὶ διανοεῖσθαι· ταῦτα δὲ πάντα κινήσεις εἶναι δοκοῦσιν. ὅθεν οἰηθείη τις ἂν αὐτὴν κινεῖσθαι· τὸ δ' οὐκ ἔστιν ἀναγκαῖον . . . βέλτιον γὰρ ἴσως μὴ λέγειν τὴν ψυχὴν ἐλεεῖν ἢ μανθάνειν ἢ διανοεῖσθαι, ἀλλὰ τὸν ἄνθρωπον τῇ ψυχῇ. τοῦτο δὲ μὴ ὡς ἐν ἐκείνῃ τῆς κινήσεως οὔσης, ἀλλ' ὁτὲ μὲν μέχρι ἐκείνης, ὁτὲ δ' ἀπ' ἐκείνης, οἷον ἡ μὲν αἴσθησις ἀπὸ τωνδὶ [it is a motion which proceeds from the senses to the soul], ἡ δ' ἀνάμνησις ἀπ' ἐκείνης ἐπὶ τὰς ἐν τοῖς αἰσθητηρίοις κινήσεις ἢ μονάς. *Phys.* vii. 3, 246, b, 24, shows with reference to the higher faculties that neither virtue and vice on the one hand, nor thought on the other, can be said to be an ἀλλοίωσις of the soul, although they are produced by an ἀλλοίωσις Cf. p. 94, n. 2.

[3] Cf. i. 386, n. 1, and i. 359, n. 1, *supra*.

[4] See p. 103 sq. *supra*.

Where, finally, are we to look in this union of heterogeneous parts for that centre of equilibrium of the soul's life, which we call Personality? It cannot reside, it would seem, in Reason, for this is the permanent universal element in man which is unaffected by the changing conditions of individual life; it is not born, and it does not die; it is free from all suffering and change; it is subject to no failure or error; neither love nor hate nor memory nor even intellectual activity[3] belongs to it, but only to the man in whom it resides.[4] Neither can Personality lie in the lower faculties of the soul. For, on the one hand, Aristotle, as we have just seen, combats the view that these are subject to motion, and finds the proper subject of the changing states of feeling and even of intelligent thought, not in the soul itself, but in the union of both soul and body in man. On the other hand, he asserts that the essence of each individual is his reason,[1] by which he understands, not thought alone, but every kind of intellectual apprehension.[2] And if he refuses to acknowledge the soul as the subject of emotion, he is not likely to find it in the body.[3] The most serious difficulty, however, arises in connection with his theory of the Will. Will cannot belong to Reason as such, for Reason taken in itself is not practical but theoretical. Even practical thought is sometimes regarded by Aristotle as a function of a different faculty from theoretic.[4] Movement and action, in fact, come from desire, which in turn is excited by imagination.[5] Desire, again, can cause movement, but not rational movement,[6] for it belongs to animals as well

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[1] As, for instance, the passage quoted, p. 109, n. 5, according to which, in desire, the appetitive part of the soul is both mover and moved, the *ζῷον* is only moved; and the description of sensation, p. 58, n. 4.

[2] See i. 454, n. 2, 3.

[3] *Διάνοια* in the sense of discursive thought as explained, p. 106, n. 2.

[4] Besides the passages quoted, p. 99, n. 3, and p. 124, n. 2, *supra*, cf. *De An.* iii. 10, 433, a, 26: *νοῦς μὲν οὖν πᾶς ὀρθός*, but especially *De An.* i. 4, 408, b, 24: *καὶ τὸ νοεῖν δὴ καὶ τὸ θεωρεῖν μαραίνεται ἄλλου τινὸς ἔσω φθειρομένου, αὐτὸ δὲ ἀπαθές ἐστιν* (see p. 96, n. 2, *supra*). *τὸ δὲ διανοεῖσθαι καὶ φιλεῖν ἢ μισεῖν οὐκ ἔστιν ἐκείνου πάθη, ἀλλὰ τουδὶ τοῦ ἔχοντος ἐκεῖνο, ᾗ ἐκεῖνο ἔχει. διὸ καὶ τούτου φθειρομένου οὔτε μνημονεύει οὔτε*

φιλεῖ· οὐ γὰρ ἐκείνου ἦν, ἀλλὰ τοῦ κοινοῦ, ὃ ἀπόλωλεν.

[1] *Eth.* x. 7, 1178, a, 2: *δόξειε δ' ἂν καὶ εἶναι ἕκαστος τοῦτο* [*i.e.* *νοῦς*] *εἴπερ τὸ κύριον καὶ ἄμεινον.* ix. 4, 1166, a, 16, 22: *τοῦ διανοητικοῦ χάριν ὅπερ ἕκαστος εἶναι δοκεῖ . . . δόξειε δ' ἂν τὸ νοοῦν ἕκαστος εἶναι ἢ μάλιστα.* c. 8, 1168, b, 28: the good man might be said to be pre-eminently *φίλαυτος*, seeing that love of the most essential (*κυριώτατον*) part of himself predominates in all he does. *ὥσπερ δὲ καὶ πόλις τὸ κυριώτατον μάλιστ' εἶναι δοκεῖ καὶ πᾶν ἄλλο σύστημα, οὕτω καὶ ἄνθρωπος . . . καὶ ἐγκρατὴς δὲ καὶ ἀκρατὴς λέγεται τῷ κρατεῖν τὸν νοῦν ἢ μὴ, ὡς τούτου ἑκάστου ὄντος· καὶ πεπραγέναι δοκοῦσιν αὐτοὶ καὶ ἑκουσίως τὰ μετὰ λόγου μάλιστα.*

[2] See p. 93, n. 5, *supra.*

[3] *Eth.* x. 2, 1173, b, 10: if pleasure is an *ἀναπλήρωσις*, the body must be that which feels pleasure, but this is not the case.

[4] *Eth.* vi. 2; see p. 113, n. 2, *supra.*

[5] See the passages from *Eth.* vi. 2, 1139, a, 35, already employed, p. 113 sq.: *διάνοια δ' αὐτὴ οὐθὲν κινεῖ, ἀλλ' ἡ ἕνεκά του καὶ πρακτική.* *De An.* iii. 10, 433, a, 22: *ὁ μὲν νοῦς οὐ φαίνεται κινῶν ἄνευ ὀρέξεως.* c. 9, 432, b, 26: *ἀλλὰ μὴν οὐδὲ τὸ λογιστικὸν καὶ ὁ καλούμενος νοῦς ἐστὶν ὁ κινῶν· ὁ μὲν γὰρ θεωρητικὸς οὐθὲν νοεῖ πρακτὸν, οὐδὲ λέγει περὶ φευκτοῦ καὶ διωκτοῦ οὐθὲν, ἡ δὲ κίνησις ἢ φεύγοντός τι ἢ διώκοντός τί ἐστιν. ἀλλ' οὐδ' ὅταν θεωρῇ τι τοιοῦτον, ἤδη κελεύει φεύγειν ἢ διώκειν . . . ἔτι καὶ ἐπιτάττοντος τοῦ νοῦ καὶ λεγούσης τῆς διανοίας φεύγειν τι ἢ διώκειν οὐ κινεῖται ἀλλὰ κατὰ τὴν ἐπιθυμίαν πράττει, οἷον ὁ ἀκρατής. καὶ ὅλως ὁρῶμεν ὅτι ὁ ἔχων τὴν ἰατρικὴν οὐκ ἰᾶται, ὡς ἑτέρου τινὸς κυρίου ὄντος τοῦ ποιεῖν κατὰ τὴν ἐπιστήμην, ἀλλ' οὐ τῆς ἐπιστήμης.*

[6] *De An.* iii. 9 *fin.*, after the passage just quoted: *ἀλλὰ μὴν οὐδ' ἡ ὄρεξις ταύτης κυρία τῆς κινή-*

as man, whereas the Will belongs to man alone.[1] Both Reason and Desire must therefore enter into Will as constituent parts.[2] But in which of these two the essence of the Will or the power of free self-determination resides, it is hard to say. On the one hand, the power of controlling desire is attributed to Reason, which is defined as the motive force, or more accurately the source from which the resolutions of the will proceed:[3] and immorality is treated as a perversity of Reason.[4] On the other hand, it is asserted that Reason initiates

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σεως· οἱ γὰρ ἐγκρατεῖς ὀρεγόμενοι καὶ ἐπιθυμοῦντες οὐ πράττουσιν ὧν ἔχουσι τὴν ὄρεξιν, ἀλλ' ἀκολουθοῦσι τῷ νῷ.

[1] Cf. p. 114, n. 3, and p. 117, n. 3.

[2] See p. 114, n. 3, and *Eth.* vi. 2, 1139, a, 33: *διὸ οὔτ' ἄνευ νοῦ καὶ διανοίας οὔτ' ἄνευ ἠθικῆς ἐστὶν ἕξεως ἡ προαίρεσις.* b, 4: *διὸ ἢ ὀρεκτικὸς νοῦς ἡ προαίρεσις ἢ ὄρεξις διανοητικὴ καὶ ἡ τοιαύτη ἀρχὴ ἄνθρωπος.* If, in opposition to the above view, it be said that the will belongs to *ὄρεξις*, which is regarded by Aristotle as a separate part of the soul (SCHRADER, *Arist. de Volunt. Doctr.* 12), this cannot be admitted. Aristotle himself states clearly enough that reason is an element of will, but reason is essentially different from the animal soul to which *ὄρεξις* belongs.

[3] Aristotle frequently says that the command in the soul belongs by nature to the reason. It is *κύριον* in it (*Eth.* x. 7, ix. 8; see p. 126, n. 1, *supra*); it has no superior (*De An.* i. 5, 410, a, 12: *τῆς δὲ ψυχῆς εἶναί τι κρεῖττον καὶ ἄρχον, ἀδύνατον· ἀδυνατώτερον δ' ἔτι τοῦ νοῦ*). Desire, on the other hand, must obey the reason (*Polit.* i. 5: *ὁ δὲ νοῦς [ἄρχει] τῆς ὀρέξεως πολιτικὴν καὶ βασιλικὴν [ἀρχήν]*. *De An.* iii. 9, v. 598, 5 above: *ἐπιτάττοντος τοῦ νοῦ*. *Eth.* i. 13: the *ὀρεκτικὸν* partakes of *λόγος*, *ᾗ κατήκοόν ἐστιν αὐτοῦ καὶ πειθαρχικόν*, similarly *Polit.* vii. 14, v. p. 588; *λόγος*, however, resides only in the reason), and this obedience it is which constitutes the difference between the *ἐγκρατὴς* and the *ἀκρατής* (*De An.* iii. 9, see p. 126, n. 6). In *Eth.* iii. 5, 1113, a, 5 (*παύεται γὰρ ἕκαστος ζητῶν πῶς πράξει, ὅταν εἰς αὑτὸν ἀναγάγῃ τὴν ἀρχὴν* [sc. *τῆς πράξεως* when he is convinced that the action depends only on himself] *καὶ αὑτοῦ* [this is the partitive genitive] *εἰς τὸ ἡγούμενον· τοῦτο γὰρ τὸ προαιρούμενον*), we must understand by *τὸ ἡγούμενον* the reason, not (as WALTER, *Lehre v. d. prakt. Vernunft*, 222 sqq. prefers to take it) 'the harmonious union of reason and endeavour,' 'the man as a whole, which could not be called the governing part of the man.

[4] *Eth.* vii. 7, 1150, a, 1 sqq. c. 9, 1151, a, 17 sq.

no movement and is perfect and infallible.[1] But if Reason cannot err, it cannot be the seat of the Will, to which belong the doing of good and the doing of evil. Where Aristotle actually supposes this to reside, it is impossible to say. He is clearly drawn in opposite directions by opposite considerations between which he is unable to take up any decided position. His high conception of the nature of the spiritual element in man forbids him to implicate Reason in the life of the body, or to attribute to it error and immorality; on the other hand, it is to Reason alone that the reins of government in the soul can be committed. But the two elements are in reality inseparable, and in deducing only what is good in our actions from Reason, while limiting to the lower faculties of the soul all that is faulty, every act which has for its object what is divisible and corporeal, all change in act or state, he breaks up human nature into two parts between which no living bond of connection can be discovered.[2] Similar difficulties would have arisen in regard to self-consciousness had Aristotle gone deeper into this aspect of the question. But just his failure to do so or to raise the question in the form in which it now presents itself to us, as to what it is that constitutes the permanent self amid our changing acts and states,[1] shows more clearly than anything else how imperfectly he grasped the problem of the unity of the personal life.

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[1] Cf. on the former head, p. 126, n. 5, on the second, *De An.* iii. 10 (p. 125, n. 4), and p. 197, n. 4, *supra. Eth.* i. 13, 1102, b, 14: τοῦ γὰρ ἐγκρατοῦς καὶ τοῦ ἀκρατοῦς τὸν λόγον καὶ τῆς ψυχῆς τὸ λόγον ἔχον ἐπαινοῦμεν· ὀρθῶς γὰρ καὶ ἐπὶ τὰ βέλτιστα παρακαλεῖ—so that in incontinence the mistake does not lie with the rational part of the soul; *ibid.* ix. 8, 1169, a, 17: πᾶς γὰρ νοῦς αἱρεῖται τὸ βέλτιστον ἑαυτῷ, ὁ δ' ἐπιεικὴς πειθαρχεῖ τῷ νῷ, where virtue is said to consist in the subordination of the higher portions of the soul to the reason, which in its turn always chooses the right.

[2] The difficulty remains even although we assume with BRANDIS (iii. a, 105 sq. ii. b, 1042 sq.) that freedom, according to Aristotle, consists 'in the spirit's faculty of self-evolution in accordance with its own fundamental nature.' For we may ask to which part of the soul this evolution belongs? The active reason cannot certainly evolve itself, for it is unchangeable; nor can the appetitive and sensitive exhibit free self-evolution, being always determined by something else; only where there is reason do we find free activity. Lastly, the Passive Reason, which is the only other

Now, if reason enters man from without, and if its union with the other faculties of his soul, and with the

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alternative, is open to the same charge of indefiniteness and contradiction; we cannot find any definite place for it between reason and sense. The above definition of freedom is more like Leibnitz's than Aristotle's. Here also, as in the case already discussed i. 413, *supra*, sq., **BRANDIS** seems to find too close a resemblance between Aristotelian and modern German doctrines. The argument upon which he chiefly relies for the above view is that, if self-determination has its seat in the governing part of our nature, and therefore in the spirit, and if further the spirit is the essence of a man, we may conclude that it must develop by free self-determination according to its original character as individual essence. But spirit or reason constitutes, according to Aristotle, only one side of the will; its reference to sense is as essential an element. Will is not pure reason, but rational desire. And even were it not so, if will were exclusively an exercise of reason, we could only conclude that it is as incapable of evolution as of error, for according to Aristotle's expressed opinion change and evolution are confined to the sphere of sensation or even more strictly to the body. It is difficult, therefore, to say *what* Aristotle regarded as the seat of the freedom of the will.

[1] He remarks, indeed, that we are conscious of every form of our activity as such, and therefore of our own existence. *Eth.* ix. 9, 1070, a, 29: *ὁ δ' ὁρῶν ὅτι ὁρᾷ αἰσθάνεται καὶ ὁ ἀκούων ὅτι ἀκούει καὶ ὁ βαδίζων ὅτι βαδίζει, καὶ ἐπὶ τῶν ἄλλων ὁμοίως ἔστι τι τὸ αἰσθανόμενον ὅτι ἐνεργοῦμεν, ὥστε αἰσθανοίμεθ' ἂν ὅτι αἰσθανόμεθα καὶ νοοῖμεν ὅτι νοοῦμεν. τὸ δ' ὅτι αἰσθανόμεθα ἢ νοοῦμεν, ὅτι ἐσμέν· τὸ γὰρ εἶναι ἦν αἰσθάνεσθαι ἢ νοεῖν*); This consciousness, however, he regards as immediately given with the activity in question. In perception it has its seat in the *sensus communis* (see p. 69, n. 3). How the identity of self-consciousness in the different activities which he refers to different parts and faculties of the soul is to be explained he does not inquire.

body, continues throughout to be merely an external one, we cannot but expect that a union which begins in time will also end in time.[1] Upon this point, Aristotle holds with Plato that there is a mortal and also an immortal part in the soul. These unite together at the beginning of the earthly life, and separate from one another again at its close. In the further development, moreover, of this thought he at first closely followed Plato. In his earlier writings he enunciated the Platonic doctrines of the pre-existence of the soul, its incarceration in the body, and its return at death to a higher existence.[2] He therefore assumed the continued personality and self-conscious existence of the individual after death, although he failed, like Plato, fully to investigate the question how far this doctrine was consistent with the presuppositions of the Platonic philosophy.[3] With the independent development of his own system, however, he was necessarily led to question these assumptions. As he came to conceive of body and soul as essentially united, and to define the soul as the entelechy of the body, and as, further, he became convinced that every soul requires its own proper organ, and must remain wholly inoperative without it, he was necessarily led, not only to regard the pilgrimage of the soul in the other world as a myth, but also to question the doctrines of pre-existence and immortality as they were held by Plato.[4] Inasmuch as the soul is dependent upon the body for its existence and activity, it must come into existence and perish with it. Only incorporeal spirit can precede and outlast the bodily life. But this, according to Aristotle, is to be found only in the reason and in that part of it which is without taint of the lower activities of the soul—namely, the Active Nous. Neither the sensitive nor the nutritive life can exist without the body. These come into existence in and with it, and can no more be conceived of apart from it than walking apart from feet.[1] Even Passive Reason is transitory, like everything else which is subject to impression and change. The Active Reason alone is eternal and imperishable; it alone is not only separable, but in its very nature absolutely separated from the body.[2] But what now is the active reason which thus alone outlives death? It is the universal as distinguished from the individual element in man. All personal forms of activity, on the other hand, are referred either to the lower faculties of the soul, or to the whole, which is made up of soul and body, and which at death ceases to be. If we think of reason as separate from the body, we must exclude from it love and hate, memory and intelligent thought;[3] likewise, of course, all affections, together with the feelings of pleasure and pain, all of which belong to the sphere of the sensitive life; and since even will depends for existence upon the union of Reason with Desire, it also must perish with the lower parts of the soul.[1] Spirit or thought Aristotle doubtless conceived of as surviving death, and since it realises itself only in the activity of thought, this activity also must remain untouched by death, as it is held to be proof against old age.[2] But of the way in which we are to think of this continuance of thought after its separation from the body and the lower faculties of the soul Aristotle gives us no hint whatever. Even thought is impossible without the aid of pictorial imagination,[3] which cannot be said to exist in any intelligible sense after the death of the sentient soul. And when the body, which the soul as individual presupposes;[4] when perception, imagination, memory, reflexion; when the feelings of pleasure and pain, the

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[1] Aristotle's doctrine of immortality is discussed by SCHRADER, *Jahrb. f. Philologie*, vol. 81 and 82 (1860), H. 2, p. 89–104; Leonh. SCHNEIDER, *Unsterblichkeitslehre d. Aristot.* (Passau, 1867), p. 100 sqq.

[2] The references on this subject have already been given. Cf. BERNAYS, *Dial. d. Arist.* 21 sqq. 143 sqq.

[3] On which cf. *Ph. d. Gr.* i. 717 sq.

[4] Cf. p. 10, *supra*.

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[1] See p. 6, n. 1, and p. 96, n. 1, *supra.*

[2] See p. 98, n. 1, *supra*, and *Metaph.* xii. 3, 1070, a, 24: εἰ δὲ καὶ ὕστερόν τι ὑπομένει [whether anything remains after the dissolution of the constituent parts of a composite substance] σκεπτέον· ἐπ' ἐνίων γὰρ οὐθὲν κωλύει, οἷον εἰ ἡ ψυχὴ τοιοῦτον, μὴ πᾶσα ἀλλ' ὁ νοῦς· πᾶσαν γὰρ ἀδύνατον ἴσως.

[3] See on this point the passages cited on pp. 125, n. 4, and 101, n. 3, *De An.* i. 4, 408, a, 24 sqq. iii. 5, 430, a, 22. In the first of these passages διανοεῖσθαι, φιλεῖν, μισεῖν, μνημονεύειν are expressly denied of reason, and the statement that these belong in any sense to a rational being

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is qualified by the addition: *διὸ καὶ τούτου φθειρομένου οὔτε μνημονεύει οὔτε φιλεῖ. οὐ γὰρ ἐκείνου ἦν, ἀλλὰ τοῦ κοινοῦ, ὃ ἀπόλωλεν.* With regard to the second, it has already been remarked, p. 101, n. 2, *sup.*, that the words *οὐ μνημονεύομεν δὲ* refer in the first instance, indeed, to the failure to remember the existence out of time of the Nous anterior to its life in time, but that what is true of the present life in relation to an anterior one must be equally true of the future life in relation to the present. Since memory (according to p. 70 sq.) is an attribute of the sensitive soul and depends upon the bodily organs, and since without the passive reason, which perishes at death, no individual thought is possible (p. 101, n. 3), it is obvious that neither can survive death. SCHLOTTMANN's explanation (p. 50 of the work mentioned p. 123, n. 3, *supra*), according to which the words *οὐ μνημονεύομεν*, &c. refer to the continuous activity of the *νοῦς ποιητικὸς* in the present life as an unconscious one, is consistent neither with the connection in which they stand nor with the meaning which is constantly attached to *μνημονεύειν* in Aristotelian phraseology.

[1] Cf. p. 109, n. 1, 2, and p. 126 sq.

[2] See p. 96, n. 2, *supra*.

[3] See p. 108, n. 2, *supra*.

[4] Cf. i. 369 sq., *supra*.

emotions, the desires and the will; when, finally, the whole being compounded of the union of soul and body has ceased as a whole to be, we are at a loss to see where that solitary remnant which he calls spirit can still reside, and how we can still speak of any personal life at all.[1] And, indeed, Aristotle himself in expressly rejecting the idea that the dead can be happy, and in comparing their state to the loss of all sense,[2] seems to deny the existence of any such remnant. Under these circumstances it is impossible to say that Aristotle taught a doctrine of personal immortality.[1] He taught merely the continued existence of thinking spirit, denying to it all the attributes of personality, and never explaining nor apparently even raising the question, how far this spirit can still be regarded as belonging to an individual, as incorporeal reason, in spite of its eternity and impassivity, certainly is.[2] In this omission we have only another instance of that defect which, taking its rise in the Platonic school, permeates the whole of Aristotle's Anthropology. Just as his Metaphysics gives us no clear and consistent account of Individuality, so his Psychology fails with regard to Personality. As he there left it undetermined whether the ground of individual existence lies in Matter or in Form, so here we are left in the dark as to whether Personality resides in the higher or in the lower faculties of the soul, in the immortal or in the mortal part of our nature. We are left to conclude that each of these alternatives involves difficulties which Aristotle has done nothing to remove, and which, there-

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[1] Even BRENTANO'S *Psychol. d. Arist.* 128 sq. fails to find a satisfactory answer to this question; while maintaining that the soul must remain an individual entity after its separation from the body, he yet admits that it is no longer a 'complete substance,' repeating the statement, p. 196 sq. But how a man can be the same person when he is no longer the 'perfect substance' which he is in the present life, it is difficult to see: not to mention that the contradiction of an 'imperfect substance' finds no place in Aristotle's system.

[2] *Eth.* iii. 4, 1111, b, 22 (*βούλησις δ' ἐστὶ τῶν ἀδυνάτων, οἷον ἀθανασίας*) is not here in point, as *ἀθανασία* must be understood to mean here, not immortality after death, but immunity from death, deathlessness. *Ibid.* c. 11, 1115, a, 26: the discussion is merely of the common opinion. On the other hand, *Eth.* i. 11 is of importance for our question. Aristotle here asks whether the dead can be happy, and replies (1100, a, 13): *ἢ τοῦτό γε παντελῶς ἄτοπον ἄλλως τε καὶ τοῖς λέγουσιν ἡμῖν ἐνέργειάν τινα τὴν εὐδαιμονίαν; εἰ δὲ μὴ λέγομεν τὸν τεθνεῶτα εὐδαίμονα μηδὲ Σόλων τοῦτο βούλεται* &c., obviously implying that the dead are incapable of any activity. He says, indeed, in the passage that follows: *δοκεῖ γὰρ εἶναί τι τῷ τεθνεῶτι καὶ κακὸν καὶ ἀγαθὸν, εἴπερ καὶ τῷ ζῶντι μὴ αἰσθανομένῳ δέ*, and p. 1101, b, 1: *ἔοικε γὰρ ἐκ τούτων, εἰ καὶ διϊκνεῖται πρὸς αὐτοὺς ὁτιοῦν, εἴτ' ἀγάθὸν εἴτε τοὐναντίον, ἀφαυρόν τι καὶ μικρὸν ἢ ἁπλῶς ἢ ἐκείνοις εἶναι, εἰ δὲ μὴ, τοσοῦτόν γε καὶ τοιοῦτον ὥστε μὴ ποιεῖν εὐδαίμονας τοὺς μὴ ὄντας* [those who are not so] *μηδὲ τοὺς ὄντας ἀφαιρεῖσθαι τὸ μακάριον.* His meaning, however, cannot here be that the dead have a feeling of happiness or unhappiness which is increased by the prosperity or misfortune of posterity (which is the subject under discussion). This is even expressly denied and would be wholly inconsistent with the rest of Aristotle's teaching. He is here speaking of the æsthetic estimate of human life, the question being how far the picture of happiness with which the life of a man presents us is altered by the light or shade cast upon it by the fortunes of his descendants, just as (1100, a, 20) by the honour or disgrace which follow himself after death. How remote is an actual, personal immortality from Aristotle's thought is

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obvious also from *Eth.* ix. 8, 1169, a, 18. The good man, he there says, will do much for his friends and country, κἂν δέῃ ὑπεραποθνήσκειν . . . ὀλίγον γὰρ χρόνον ἡσθῆναι σφόδρα μᾶλλον ἕλοιτ' ἂν ἢ πολὺν ἠρέμα, καὶ βιῶσαι καλῶς ἐνιαυτὸν ἢ πόλλ' ἔτη τυχόντως, καὶ μίαν πρᾶξιν καλὴν καὶ μεγάλην ἢ πολλὰς καὶ μικράς. τοῖς δ' ὑπεραποθνήσκουσι τοῦτ' ἴσως συμβαίνει. αἱροῦνται γὰρ μέγα καλὸν ἑαυτοῖς. Besides the inherent worth of the noble deed Plato would certainly have referred in such a case to the recompense in the next life; in Aristotle there is no trace of any such conception. The same is true of *Eth.* iii. 12, 1117, b, 10: ὅσῳ ἂν μᾶλλον τὴν ἀρετὴν ἔχῃ πᾶσαν καὶ εὐδαιμονέστερος ᾖ, μᾶλλον ἐπὶ τῷ θανάτῳ λυπηθήσεται· τῷ τοιούτῳ γὰρ μάλιστα ζῆν ἄξιον, καὶ οὗτος μεγίστων ἀγαθῶν ἀποστερεῖται εἰδώς.

[1] SCHRADER, *ibid.* 101 sq.

[2] See p. 99, n. 5, *supra.*

fore, we cannot doubt he failed himself to observe. Reason as such or Pure Spirit cannot, it would appear, be the seat of Personality, since it is the eternal, universal, and immutable element in man. It is untouched by birth and death, and by the changes of the temporal life. It abides immutably within the circle of its own life, without receiving impressions from without or passing any part of its activity beyond itself. To the sphere of sense, on the other hand, are assigned all multiplicity and movement, all interchange between the world and man, all mutation and evolution—in a word, all that is definite and living in personal existence. Yet the personality and free self-determination of a rational being cannot be said to reside in the sensitive part of his nature. Wherein does it, then, reside? To this question Aristotle has no answer; for just as Reason, on his view, enters the sensitive soul at birth from without and leaves it again at death, so during life also there is lacking any inner unity between the two. And what is said about the Passive Reason and the Will is wholly unfitted, on account of its vagueness and uncertainty, to afford any scientific principle that can mediate between the heterogeneous parts of the human soul.

CHAPTER XII

PRACTICAL PHILOSOPHY

A.—Ethics

HITHERTO we have had for our aim the investigation of the knowledge of reality as such. We have now to deal with an activity to which knowledge serves only as a means. This consists either in production or in action.[1] The scientific investigation of the latter Aristotle embraces under the general name of Politics,[2] distinguishing, however, between Politics proper, or the doctrine of the State, and Ethics,[3] which naturally precedes it. Turning to the latter, we must ask first how the End of all human action is defined by Aristotle. We shall then proceed to his account of the nature of Moral Activity and of the particular Virtues; passing thence with him to the discussion of Friendship, which forms the link between Ethics and Politics.[1]

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[1] See i. 181, n. 3, *supra*, and upon the method of this science, i. 168, n. 2, *supra*. That it has not to do, however, merely with practical interests is obvious among other passages from *Polit.* iii. 8 *init.*: δεῖ δὲ μικρῷ διὰ μακροτέρων εἰπεῖν τίς ἑκάστη τούτων τῶν πολιτειῶν ἐστίν· καὶ γὰρ ἔχει τινὰς ἀπορίας, τῷ δὲ περὶ ἑκάστην μέθοδον φιλοσοφοῦντι καὶ μὴ μόνον ἀποβλέποντι πρὸς τὸ πράττειν οἰκεῖόν ἐστι τὸ μὴ παρορᾷν μηδέ τι καταλείπειν, ἀλλὰ δηλοῦν τὴν περὶ ἕκαστον ἀλήθειαν. While, therefore, practical philosophy *qua* practical has to do with action, *qua* philosophy it has the scientific interest of pure knowledge.

[2] See i. 187, *supra*. Practical philosophy is also called ἡ περὶ τἀνθρώπινα φιλοσοφία, *Eth.* x. 10, 1181, b, 15.

[3] The common view of the relation between them, which was adopted i. 187, viz. that Ethics treats of the moral activity of the individual, Politics of the State, cannot, even in view of what NICKES, *De polit. Arist. Libr.* p. 5 sq., and BRANDIS, p. 1335, remark, be admitted to be wrong. Aristotle certainly distinguishes (*Eth.* x. 10) between the two parts of Politics on the ground that the second deals with the means by which the knowledge of virtue acquired in

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the first is applied to life, and he proves the necessity of this further investigation on the ground that discussions (or knowledge, λόγοι) are not able of themselves to make men virtuous. Accordingly, *Ethics* and *Politics* may be said to be related to one another as the pure and the applied part of one and the same science. But as those means are to be found, according to Aristotle, only in the life of the community, upon which the *Ethics* (as an account of moral activities as such) does not further enter, the above description corresponds to the actual relation in which the works stand to one another. Even Aristotle, moreover, distinguishes (*Eth.* vi. 8, 1141, b, 23) between two kinds of practical knowledge: that which refers to the individual, and that which refers to the community. *ἔστι δὲ*, he says, *καὶ ἡ πολιτικὴ καὶ ἡ φρόνησις ἡ αὐτὴ μὲν ἕξις, τὸ μέντοι εἶναι οὐ ταὐτὸν αὐταῖς*, and after distinguishing the different departments of politics (*τῆς περὶ πόλιν*, sc. *ἐπιστήμης*) he continues: *δοκεῖ δὲ καὶ φρόνησις μάλιστ' εἶναι ἡ περὶ αὐτὸν καὶ ἕνα.* While, however, *φρόνησις* is knowledge in relation to moral conduct, ethics is simply the account of the principles which *φρόνησις* establishes. Eudemus (*v.* i. 186, n. 4, *supra*) accordingly calls it by this name. —It is not true that the *Magna Moralia* subordinates politics to ethics (BRANDIS, *ibid.*): the latter is there described at the very outset as a *μέρος τῆς πολιτικῆς*, it being added that the subject as a whole should be called, not ethics, but politics. When NICKES, *ibid.*, sees in the *Ethics* only a treatise upon the *summum bonum*, this description (in so far as it indicates merely the ascertainment and enumeration of the constituent parts of the *summum bonum*) is too narrow; the *Ethics* itself classifies its contents (x. 10 *init.*) under the four titles of the *summum bonum*, the virtues, friendship, and pleasure—so that it is apparent, even on the surface, that it is not a mere description of the *summum bonum*, but an account of moral action as a whole. If, on the other hand, we include in the discussion of the *summum bonum* the detailed investigation into all its conditions and constituent parts, the suggested description would be too wide, for its most important constituent, theoretic activity, is not fully discussed in the *Ethics*.

[1] We have already discussed (p. 96 sq.) the threefold revision of the *Ethics* of Aristotle, and shall confine ourselves in the following account to the *Nicomachean Ethics*, which alone is genuine, giving the parallel

1. The End of all human activity[1] is the Good, or, more accurately, that Good which is within the reach of human action, for Ethics has no concern with the abstract Idea of the Good.[2] The final aim of all action must be the highest Good: in other words, it must be something which is sought, not for the sake of anything else, but simply and solely for its own sake, and is sufficient of itself to invest life with the highest worth.[3]

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passages from the other two only where they elucidate or deviate from it in any important respect.

[1] Cf. on this subject TEICHMÜLLER ('Die Einheit der arist. Eudämonie,' *Bulletin de la Classe d. Sci. hist.-philol. et polit. de l'Académie de St-Pétersbourg*, t. xvi. N. 20 sqq. p. 305 sqq.), who rightly emphasises the distinction between the constituent elements and the external conditions of happiness.

[2] *Eth.* i. 1 *init.* *Πᾶσα τέχνη καὶ πᾶσα μέθοδος, ὁμοίως δὲ πρᾶξίς τε καὶ προαίρεσις, ἀγαθοῦ τινος ἐφίεσθαι δοκεῖ· διὸ καλῶς ἀπεφήναντο τἀγαθὸν, οὗ πάντ' ἐφίεται.* This good is called here (1094, a, 18), and c. 2, 1095, a, 16, *πρακτὸν* and *πρακτὸν ἀγαθόν*. Aristotle next comes to speak more fully, c. 4, of the Platonic Idea of the Good (*Ph. d. Gr.* i. 591 sqq.), and after bringing forward several other arguments against it says, *ibid.* 1096, b, 30: this discussion, however, properly belongs to another science; *εἰ γὰρ καὶ ἔστιν ἕν τι καὶ* [so RASSOW, *Forsch. üb. die nikom. Eth.* 53 sq., with three MSS., for *τὸ*] *κοινῇ κατηγορούμενον ἀγαθὸν ἢ χωριστόν τι αὐτὸ καθ' αὑτὸ, δῆλον ὡς οὐκ ἂν εἴη πρακτὸν οὐδὲ κτητὸν ἀνθρώπῳ· νῦν δὲ τοιοῦτόν τι ζητεῖται.* Nor is it true that the idea of the good, at any rate as an ideal, furnishes the guiding principle in the pursuit of the *κτητὰ καὶ πρακτὰ τῶν ἀγαθῶν*. *Inter alia*, he says: *ἄπορον δὲ καὶ τί ὠφεληθήσεται ὑφάντης ἢ τέκτων πρὸς τὴν αὑτοῦ τέχνην εἰδὼς αὐτὸ τἀγαθὸν*, &c., as though moral philosophy were meant for the service of handicraft. This it certainly is not in Aristotle himself (as may herewith be expressly remarked in view of the remarks of TEICHMÜLLER, *loc. cit.* 315 sq.), and yet it must be if he is justified in using against Plato an argument that with equal justice might be turned against himself; for it must be confessed that the advantage to be derived by the weaver or the carpenter in the pursuit of his calling from Aristotle's treatise upon happiness is not great.

[3] *Eth.* i. 1, 1094, a, 18: *εἰ δή τι τέλος ἐστὶ τῶν πρακτῶν ὃ δι' αὑτὸ βουλόμεθα, τἆλλα δὲ διὰ τοῦτο, καὶ μὴ πάντα δι' ἕτερον αἱρούμεθα (πρόεισι γὰρ οὕτω γ' εἰς ἄπειρον, ὥστ' εἶναι κενὴν καὶ ματαίαν τὴν ὄρεξιν) δῆλον ὡς τοῦτ' ἂν εἴη τἀγαθὸν* [absolute good] *καὶ τὸ ἄριστον.* c. 5: in every form of activity the good is that *οὗ χάριν τὰ λοιπὰ πράττεται*—the

This highest Good is admitted on all hands to be Happiness:[1] but when we ask in what Happiness itself

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τέλος. ὥστ' εἴ τι τῶν πρακτῶν ἁπάντων ἐστὶ τέλος, τοῦτ' ἂν εἴη τὸ πρακτὸν ἀγαθὸν, εἰ δὲ πλείω, ταῦτα . . . τὸ δ' ἄριστον τέλειόν τι φαίνεται . . . τελειότερον δὲ λέγομεν τὸ καθ' αὑτὸ διωκτὸν τοῦ δι' ἕτερον καὶ τὸ μηδέποτε δι' ἄλλο αἱρετὸν τῶν καὶ καθ' αὑτὰ καὶ διὰ τοῦθ' αἱρετῶν, καὶ ἁπλῶς δὴ τέλειον τὸ καθ' αὑτὸ αἱρετὸν ἀεὶ καὶ μηδέποτε δ' ἄλλο. And further on: *τὸ γὰρ τέλειον ἀγαθὸν αὔταρκες εἶναι δοκεῖ . . . τὸ δ' αὔταρκες τίθεμεν ὃ μονούμενον αἱρετὸν ποιεῖ τὸν βίον καὶ μηδενὸς ἐνδεᾶ* (similarly PLATO, *Phileb.* 22, B); x. 6, 1176, b, 3, 30. Cf. i. 12, where it is explained that happiness, as complete in itself, is not an *ἐπαινετὸν*, but a *τίμιον*, something *κρεῖττον τῶν ἐπαινετῶν*.

[1] Aristotle presupposes this, *Eth.* i. 2, 1095, a, 17; *Rhet.* i. 5 *init.*, as something universally acknowledged. He proves it more fully, *Eth.* i. 5, 1097, a, 34 sqq.; cf. x. 6, 1176, b, 3, 30, from the points of view indicated in the preceding note. In *Eth.* i. 5, however, the words, 1097, b, 16 sqq., make a difficulty: *ἔτι δὲ*, it is here said, *πάντων αἱρετωτάτην* [sc. *τὴν εὐδαιμονίαν οἰόμεθα εἶναι*] *μὴ συναριθμουμένην, συναριθμουμένην δὲ δῆλον ὡς αἱρετωτέραν μετὰ τοῦ ἐλαχίστου τῶν ἀγαθῶν· ὑπεροχὴ γὰρ ἀγαθῶν γίνεται τὸ προστιθέμενον, ἀγαθῶν δὲ τὸ μεῖζον αἱρετώτερον ἀεί.* The most obvious meaning of these words, viz. that happiness is in the highest degree desirable without the addition of anything else, and is increased by every addition although of ever so small a good (BRANDIS, p. 1344; MÜNSCHER, *Quæst. crit. in Eth. N.* Marb. 1861, p. 9 sqq.), gives a wholly inadmissible sense to the passage; how could what is complete still grow? (as TEICHMÜLLER rightly asks, *loc. cit.* p. 312), or how can happiness, which contains all goods in itself, be increased by further additions? Moreover, it is expressly said, *Eth.* x. 2, 1172, b, 32, that nothing can be 'the good' *ὃ μετά τινος τῶν καθ' αὑτὸ ἀγαθῶν αἱρετώτερον γίνεται.* TEICHMÜLLER accordingly proposes to take the sentence as an apagoge: happiness is the most desirable thing, if we do not regard it as a sum, but if we do, then the addition of the smallest of goods must make it more desirable, and therefore we cannot regard it as a sum of particular goods. The same explanation is given by THILO, *Zeitschr. f. exacte Phil.* ii. 3, 284 sq., and LAAS (see *infra*). The question, however, in the passage is, not whether happiness is a sum of goods, but whether it is the most desirable of things or not; nor does *συναριθμούμενος* mean 'regarded as a sum;' *συναριθμεῖν* can only here have the meaning which it has in the kindred passage (explained by *Top.* iii. 2, 117, a, 16, and ALEXANDER *in loco*) *Rhet.* i. 7, 1363, b, 19; *Polit.* vi. 3, 1318, a, 35; *Soph. El.* 5, 167, a, 25; *Eth.* ii. 3, 1105, b, 1; *i.e.* it must mean either to 'count along with' or to 'count up;' when used with a singular subject it can of course only mean the former, and accordingly is explained, l. 14 of

consists, differences at once arise.[1] Some give the preference to pleasure, others to practical activity, a third class to the scientific life.[2] The first of these views seems to Aristotle hardly to deserve refutation.

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the same passage, by *μονούμενον* and understood in this sense, *M. Mor.* i. 2, 1184, a, 15 sqq.; cf. RASSOW, *Beitr. z. Erkl. d. nik. Ethik* (Weimar, 1862, *Gymn.-Progr.*), p. 5 sqq., where the explanations of LAAS (*Εὐδαιμονία Arist.* Berl. 1858, 7 sqq.), MÜNSCHER, and others, are also discussed. RASSOW's own explanation (p. 10: 'that happiness is not to be reckoned among goods nor regarded as a good beside other goods') is not easy to harmonise with the language of the passage. If the text is correct, we must explain it rather to mean: 'We regard happiness as the most desirable of all things, so far as it can be compared with them without itself being classed as one of the *πάντα* [it is more desirable than anything else]; if we desire to class it as a good together with other goods, it would become more desirable still if its value were increased by the addition of ever so small another good.' But it is difficult to see the force of the latter remark, for the proof of the proposition that happiness is perfect good, is only weakened by this concession to a non-Aristotelian point of view. It is a question whether the words *ὑπεροχὴ γὰρ . . . αἱρετώτερον ἀεὶ*, or perhaps the whole passage from *συναριθμουμένην δὲ* to *αἱρετώτ. ἀεὶ* may not be an insertion by a later hand. In the former case, we may supply *πάντων* after *αἱρετωτέραν* in the preceding words and explain them to mean: 'We hold that happiness is the most desirable of all things so far as it is not itself classed as one of them; or in so far as it is classed along with other things, combined with the smallest other good, that it is more desirable than all else besides.' The most recent editor and commentator on the *Nicomachean Ethics*, RAMSAUER, pays no regard either to the inherent difficulty of the passage or to the attempts of his predecessors to solve it.

[1] See *Eth.* i. 2, 1095, a, 20 sqq., c. 9 *init.*; *Rhet.* ibid. 1360, b, 14 sqq., where the things which are commonly regarded as happiness are enumerated and discussed in detail for the special necessities of the orator.

[2] Aristotle says previously, *Eth.* i. 2, 1095, a, 28, that he does not intend to investigate every view upon the nature of happiness, but only such as are the most commonly accepted and the most plausible. As such he names these three, c. 3 *init.*: *τὸ γὰρ ἀγαθὸν καὶ τὴν εὐδαιμονίαν οὐκ ἀλόγως ἐοίκασιν ἐκ τῶν βίων ὑπολαμβάνειν οἱ μὲν πολλοὶ καὶ φορτικώτατοι τὴν ἡδονὴν, διὸ καὶ βίον ἀγαπῶσι τὸν ἀπολαυστικόν. τρεῖς γάρ εἰσι μάλιστα οἱ προὔχοντες, ὅ τε νῦν εἰρημένος καὶ ὁ πολιτικὸς καὶ τρίτος ὁ θεωρητικός.*

Without denying that pleasure is a good, he has a most thorough contempt for the life which is dedicated to pleasure alone. Pleasure, he remarks, cannot be the highest Good, for these among other reasons: that it is not self-sufficing; that some pleasures are not desirable: that many things have an independent value of their own wholly apart from the pleasure that they bring; that pleasure and enjoyment are only a recreation, and only exist for the sake of action; that even the worst men, whom we cannot call in any sense happy, are capable of sensual enjoyment, whereas that alone is truly good which the virtuous man recognises as such.[1] Just as little can honour or wealth be admitted to be the highest good. The former does not so much affect those to whom it is paid as those who pay it; its value, moreover, consists essentially in the fact that it produces consciousness of worth, which, therefore, is of more value than the honour itself.[2] Wealth, again, is not desired on its own account, so that it wants the first characteristic of Good in the higher sense.[3]

The happiness of man can, in fact, consist only in his activity,[4] or more accurately in that activity which is proper to him as man.[1] What kind of activity is this? Not the general vital activity, which he shares even with plants; not the sensitive activity, which belongs to the lower animals as well as to man; but the activity of reason.[2] Now the activity of reason, in so far as it is rightly performed, we call Virtue. The proper happiness of man consists, therefore, in virtuous activity, or, inasmuch as there are several such, in the noblest and most perfect of these.[3] But this is the theoretic or pure activity of thought. For it belongs to the noblest faculty and directs itself to the highest object;

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[1] *Eth.* i. 3. 1095, b, 19, x. 2, 1172, b, 26, 1173, b, 28 to the end of the chap.; c. 6, 1176, b, 12–1177, a, 9.

[2] *Eth.* i. 3, 1095, b, 22 sqq.

[3] *Ibid.* 1096, a, 5, cf. *Rhet.* i. 5, 1361, a, 23.

[4] Aristotle frequently repeats that happiness does not consist in the mere possession of certain advantages, in a mere ἕξις (on which see i. 285, n. 3, *sup.*) or κτῆσις, but in actual activity. See e.g. *Eth.* i. 3, 1095, b, 31, c. 6, 1098, a, 3; and the more definite statement, c. 9, 1098, b, 31: διαφέρει δὲ ἴσως οὐ μικρὸν ἐν κτήσει ἢ χρήσει τὸ ἄριστον ὑπολαμβάνειν καὶ ἐν ἕξει ἢ ἐνεργείᾳ. τὴν μὲν γὰρ ἕξιν ἐνδέχεται μηδὲν ἀγαθὸν ἀποτελεῖν ὑπάρχουσαν, οἷον τῷ καθεύδοντι ἢ καὶ ἄλλως πως ἐξηργηκότι, τὴν δ' ἐνέργειαν οὐχ οἷόν τε· πράξει γὰρ ἐξ ἀνάγκης καὶ εὖ πράξει. As at the Olympic games it is not sufficient to be strong and fair, in

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order to win the crown of victory, but one must engage in the contest for it—so in life we win the good and the fair by action alone. In reference to these passages, see x. 6, 1176, a, 33: εἴπομεν δ' ὅτι οὐκ ἔστιν ἕξις [ἡ εὐδαιμονία]· καὶ γὰρ τῷ καθεύδοντι διὰ βίου ὑπάρχοι ἄν . . . καὶ τῷ δυστυχοῦντι τὰ μέγιστα . . . ἀλλὰ μᾶλλον εἰς ἐνέργειάν τινα θετέον. ix. 9, 1169, b, 29: ἡ εὐδαιμονία ἐνέργειά τίς ἐστιν, ἡ δ' ἐνέργεια δῆλον ὅτι γίνεται καὶ οὐχ ὑπάρχει ὥσπερ κτῆμά τι.

[1] *Eth.* i. 6, 1097, b, 24: we shall discover wherein happiness consists, εἰ ληφθείη τὸ ἔργον τοῦ ἀνθρώπου. ὥσπερ γὰρ αὐλητῇ . . . καὶ παντὶ τεχνίτῃ, καὶ ὅλως ὧν ἐστὶν ἔργον τι καὶ πρᾶξις, ἐν τῷ ἔργῳ δοκεῖ τἀγαθὸν εἶναι καὶ τὸ εὖ, οὕτω δόξειεν ἂν καὶ ἀνθρώπῳ, εἴπερ ἔστι τι ἔργον αὐτοῦ.

[2] *Ibid.* l. 33 sqq.

[3] *Eth.* i. 6, 1098, a, 7: εἰ δ' ἐστὶν ἔργον ἀνθρώπου ψυχῆς ἐνέργεια κατὰ λόγον ἢ μὴ ἄνευ λόγου, τὸ δ' αὐτό φαμεν ἔργον εἶναι τῷ γένει τοῦδε καὶ τοῦδε σπουδαίου . . . προστιθεμένης τῆς κατ' ἀρετὴν ὑπεροχῆς πρὸς τὸ ἔργον· κιθαριστοῦ μὲν γὰρ τὸ κιθαρίζειν, σπουδαίου δὲ τὸ εὖ· εἰ δ' οὕτως, ἀνθρώπου δὲ τίθεμεν ἔργον ζωήν τινα, ταύτην δὲ ψυχῆς ἐνέργειαν καὶ πράξεις μετὰ λόγου, σπουδαίου δ' ἀνδρὸς εὖ ταῦτα καὶ καλῶς, ἕκαστον δ' εὖ κατὰ τὴν οἰκείαν ἀρετὴν ἀποτελεῖται· εἰ δ' οὕτω τὸ ἀνθρώπινον ἀγαθὸν ψυχῆς ἐνέργεια γίνεται κατ' ἀρετήν, εἰ δὲ πλείους αἱ ἀρεταὶ κατὰ τὴν ἀρίστην καὶ τελειοτάτην. x. 6, 1176, b, 2: activities are valued either for the sake of something else or for their own sake; the latter is the case when nothing is expected from them beyond the activity itself. Happiness (*v. supra*) must be an activity of the latter kind. τοιαῦτα δ' εἶναι δοκοῦσιν αἱ κατ' ἀρετὴν πράξεις. τὰ γὰρ καλὰ καὶ σπουδαῖα πράττειν τῶν δι' αὑτὰ αἱρετῶν [sc. ἐστίν]. καὶ τῶν παιδιῶν δὲ αἱ ἡδεῖαι. Happiness, however, cannot consist in these (see p. 141, n. 1, *sup.*), but (1177, a, 9) ἐν ταῖς κατ' ἀρετὴν ἐνεργείαις; it is (i. 10, 1099, b, 26) ψυχῆς ἐνέργεια κατ' ἀρετὴν ποιά τις, or more accurately (i. 13, *init.*), ψυχῆς ἐνέργειά τις κατ' ἀρετὴν τελείαν.

it is exposed to the least interruption, and affords the highest pleasure; it is least dependent on foreign support and external expedients; it is its own aim and object, and is valued purely for its own sake; in it man arrives at rest and peace, while in the military and political, or in the practical life generally, he is ever restlessly pursuing ends which lie outside the activity itself. Reason is the Divine in us. It is the true essence of the man. The pure activity of reason can alone perfectly accord with his true nature. It alone can afford him unconditional satisfaction, and raise him above the limitations of humanity into the life of God.[1] Next to it comes moral activity, which thus constitutes the second essential element of happiness. Inasmuch, however, as it is the Divine in man which is called into exercise in thought, the latter may be regarded as a superhuman good; whereas moral virtue is in an especial sense *the good of man*.[1]

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[1] *Eth.* x. 7, *init.*: εἰ δ' ἐστὶν ἡ εὐδαιμονία κατ' ἀρετὴν ἐνέργεια, εὔλογον κατὰ τὴν κρατίστην· αὕτη δ' ἂν εἴη τοῦ ἀρίστου. εἴτε δὴ νοῦς τοῦτο εἴτε ἄλλο τι, . . . εἴτε θεῖον ὂν καὶ αὐτὸ εἴτε τῶν ἐν ἡμῖν τὸ θειότατον, ἡ τούτου ἐνέργεια κατὰ τὴν οἰκείαν ἀρετὴν εἴη ἂν ἡ τελεία εὐδαιμονία. ὅτι δ' ἐστὶ θεωρητικὴ εἴρηται. After proving this as above, Aristotle continues, 1177, b, 16: εἰ δὴ τῶν μὲν κατὰ τὰς ἀρετὰς πράξεων αἱ πολιτικαὶ καὶ πολεμικαὶ κάλλει καὶ μεγέθει προέχουσιν, αὗται δ' ἄσχολοι καὶ τέλους τινὸς ἐφίενται καὶ οὐ δι' αὑτὰς αἱρεταί εἰσιν, ἡ δὲ τοῦ νοῦ ἐνέργεια σπουδῇ τε διαφέρειν δοκεῖ θεωρητικὴ οὖσα, καὶ παρ' αὑτὴν οὐδενὸς ἐφίεσθαι τέλους, ἔχειν τε ἡδονὴν οἰκείαν, αὕτη δὲ συναύξει τὴν ἐνέργειαν, καὶ τὸ αὔταρκες δὴ καὶ σχολαστικὸν καὶ ἄτρυτον ὡς ἀνθρώπῳ, καὶ ὅσα ἄλλα τῷ μακαρίῳ ἀπονέμεται, κατὰ ταύτην τὴν ἐνέργειαν φαίνεται ὄντα, ἡ τελεία δὴ εὐδαιμονία αὕτη ἂν εἴη ἀνθρώπου . . . ὁ δὲ τοιοῦτος ἂν εἴη βίος κρείττων ἢ κατ' ἄνθρωπον· οὐ γὰρ ᾗ ἄνθρωπός ἐστιν οὕτω βιώσεται, ἀλλ' ᾗ θεῖόν τι ἐν αὐτῷ ὑπάρχει· ὅσῳ δὲ διαφέρει τοῦτο τοῦ συνθέτου, τοσούτῳ καὶ ἡ ἐνέργεια τῆς κατὰ τὴν ἄλλην ἀρετήν. εἰ δὴ θεῖον &c. (see p. 164. X. 8, 1178, b, 1: we require many aids to action, τῷ δὲ θεωροῦντι οὐδενὸς τῶν τοιούτων πρός γε τὴν ἐνέργειαν χρεία, ἀλλ' ὡς εἰπεῖν καὶ ἐμπόδιά ἐστι πρός γε τὴν θεωρίαν· ᾗ δ' ἄνθρωπός ἐστι καὶ πλείοσι συζῇ, αἱρεῖται τὰ κατ' ἀρετὴν πράττειν· δεήσεται δ' οὖν τῶν τοιούτων πρὸς τὸ ἀνθρωπεύεσθαι. ἡ δὲ τελεία εὐδαιμονία ὅτι θεωρητική τίς ἐστιν ἐνέργεια καὶ ἐντεῦθεν ἂν φανείη. The gods are pre-eminently considered happy; but what actions can we assign to them? Shall we suppose that they exhibit their justice by buying and selling, their valour by encountering danger, their liberality by gifts of money, their self-command by the conquest of evil desires? Nor will they sleep like Endymion. τῷ δὴ

While these are undoubtedly the essential and indispensable elements of Happiness, Aristotle does not exclude from that notion other gifts and advantages, some of which proceed from moral and rational activity, while others are independent of it.[2] Thus, for instance,

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ζῶντι, &c. (see i. 397, n. 1, *supra*) . . . *τοῖς πὲν γὰρ θεοῖς ἅπας ὁ βίος μακάριος, τοῖς δ' ἀνθρώποις, ἐφ' ὅσον ὁμοίωμά τι τῆς τοιαύτης ἐνεργείας ὑπάρχει· τῶν δ' ἄλλων ζῴων οὐδὲν εὐδαιμονεῖ, ἐπειδὴ οὐδαμῇ κοινωνεῖ θεωρίας. ἐφ' ὅσον δὴ διατείνει ἡ θεωρία, καὶ ἡ εὐδαιμονία, καὶ οἷς μᾶλλον ὑπάρχει τὸ θεωρεῖν, καὶ εὐδαιμονεῖν* [sc. *μᾶλλον ὑπάρχει*], *οὐ κατὰ συμβεβηκὸς, ἀλλὰ κατὰ τὴν θεωρίαν· αὐτὴ γὰρ καθ' αὑτὴν τιμία. ὥστ' εἴη ἂν ἡ εὐδαιμονία θεωρία τις.* *Metaph.* xii. 7, 1072, b, 24: *ἡ θεωρία τὸ ἥδιστον καὶ ἄριστον.* Cf. i. 398, n. 5, *supra*. The contradiction between these statements and *Pol.* vii. 2, 1324, a, 25, c. 3, 1325, b, 14 sqq. is only apparent. In the latter passages theoretic activity is not compared as such with practical, but the life of solitary devotion to science with the social life of the state; and while the practical life is declared to be the more excellent, the expression is used in its wider sense, and the theoretic activity which is self-sufficing and directed towards no external end is expressly said to be the most perfect form of *πρᾶξις*. Cf. also *Pol.* vii. 15, 1334, b, 14.

[1] *Eth.* x. 7 (see preceding n.); c. 8 *init.*: *δευτέρως δ'* [*εὐδαίμων*] *ὁ κατὰ τὴν ἄλλην ἀρετήν* [*βίος*]· *αἱ γὰρ κατ' αὐτὴν ἐνέργειαι ἀνθρωπικαί . . . συνέζευκται δὲ καὶ ἡ φρόνησις τῇ τοῦ ἤθους ἀρετῇ . . . συνηρτημέναι δ' αὗται* [the ethical virtues] *καὶ τοῖς πάθεσι περὶ τὸ σύνθετον ἂν εἶεν· αἱ δὲ τοῦ συνθέτου ἀρεταὶ ἀνθρωπικαί. καὶ ὁ βίος δὴ ὁ κατ' αὐτὰς καὶ ἡ εὐδαιμονία.* *Ibid.* 1178, b, 5 (see preceding n.). As will be obvious from the preceding account, the distinction here is merely in the mode of expression, nor can we say with RITTER (iii. 327) that, because Aristotle wavers in the mode of presenting his view, the theoretic understanding is intended to be left out of account in defining human happiness.

[2] The statement that such things deserve to be called advantages only in so far as they have a directly moral significance (TEICHMÜLLER, *loc. cit.* 337 sq.) is not Aristotle's; he calls them often enough goods, and that which is a good is presumably an advantage.

happiness necessarily presupposes a certain completeness of life. A child cannot be happy any more than it can be virtuous, for it is still incapable of any rational, moral action.[1] Mere temporary happiness, moreover, is insufficient: one swallow does not make summer.[2] Therefore, if we cannot say with Solon that no man is happy till he is dead, yet we must admit that happiness can, at any rate, only be looked for in a life which has reached a certain degree of maturity. Happiness, in fact, is the virtuous activity of the soul in a completed life.[3] Again, man requires for perfect happiness certain external goods. Happiness, it is true, is something other than good fortune.[4] Poverty, sickness, and misfortune may even serve the brave man as an occasion for noble conduct, and so far the really happy man can never be miserable. And yet, on the other hand, no one will call a man any longer happy if the fate of a Priam overtakes him;[5] and while the virtuous man can be content with few gifts of fortune,[6] yet in many respects they are indispensable to him: without wealth, power, influence, little can be accomplished; noble birth, beauty, joy in one's children, are elements in perfect happiness; friendship is even more necessary to the happy than to the unhappy; health is invaluable to all; in a word, for complete satisfaction in life, besides spiritual good, a certain supply of material and external advantages (*χορηγία, εὐετηρία, εὐημερία*) is indispensable,[1] and this it is a mistake to suppose is necessarily bestowed by the gods upon the virtuous man.[2] The gifts of fortune taken in themselves, therefore, are certainly a good, although to the individual they may often turn out an evil.[3]

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[1] *Eth.* i. 10, 1100, a, 1.

[2] *Ibid.* i. 6 *fin.*

[3] *Ibid.* i. 11, 1191, a, 14: *τί οὖν κωλύει λέγειν εὐδαίμονα τὸν κατ' ἀρετὴν τελείαν ἐνεργοῦντα καὶ τοῖς ἐκτὸς ἀγαθοῖς ἱκανῶς κεχορηγημένον, μὴ τὸν τυχόντα χρόνον ἀλλὰ τέλειον βίον; ἢ προσθετέον καὶ βιωσόμενον οὕτω καὶ τελευτήσοντα κατὰ λόγον;* cf. p. 133, n. 2, x. 7, 1177, b, 24: *ἡ τελεία δὴ εὐδαιμονία αὕτη ἂν εἴη ἀνθρώπου, λαβοῦσα μῆκος βίου τέλειον· οὐδὲν γὰρ ἀτελές ἐστι τῶν τῆς εὐδαιμονίας.*

[4] *Polit.* vii. 1, 1323, b, 26; *Eth.* vii. 14, 1153, b, 21.

[5] *Eth.* i. 11, 1101, a, 6 (see p. 150, n. 2, *infra*); cf. vii. 14, 1153, b, 17; *Polit.* vii. 13, 1332, a, 19.

[6] *Eth.* x. 9, 1179, a, 1: *οὐ μὴν οἰητέον γε πολλῶν καὶ μεγάλων δεήσεσθαι τὸν εὐδαιμονήσοντα, εἰ μὴ ἐνδέχεται ἄνευ τῶν ἐκτὸς μακάριον εἶναι· οὐ γὰρ ἐν τῇ ὑπερβολῇ τὸ αὔταρκες καὶ ἡ πρᾶξις, δυνατὸν δὲ καὶ μὴ ἄρχοντα γῆς καὶ θαλάττης πράττειν τὰ καλά.* Private persons, it is remarked, are as a rule the happiest. Cf. *Polit.* vii. 1, 1323, a, 38 sqq.

Even pleasure Aristotle reckoned an element in happiness, defending it against the reproaches cast upon it by Plato and Speusippus.[4] For he takes a quite different view of its nature. Plato had relegated pleasure to the sphere of indeterminate, motionless Being or Becoming; to Aristotle, on the other hand, it is rather the natural perfection of every activity, and as such the immediate outcome of the perfected activity in as true a sense as health and beauty are the immediate outcome of bodily perfection. It is not a movement and a becoming, but the goal in which every movement of life finds rest and completeness.[1] The

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[1] See *Eth.* i. 9, 1099, a. 31 sqq. c. 3, 1096, a, 1, c. 11, 1101, a, 14, 22, vii. 14, 1153, b, 17, viii. 1 *init.* ix. 9, 11 (to which I shall subsequently return), x. 8, 1178, a, 23 sq. c. 9 *init.*; *Polit.* vii. 1, 1323, a, 24, c. 13, 1331, b, 41, also *Rhet.* i. 5, 1360, b, 18 sqq.

[2] Aristotle says, indeed, *Eth.* x. 9 *ad fin.*, c. 10 *init.*, that he who lives according to reason is dear to the gods, who take pleasure in that which is akin to themselves; if the gods care for men, such a one will be the most highly favoured by them, and if anything is their gift it must be happiness. We have already seen that his system leaves no room for a special providence. The care of the gods, therefore, if we transfer the expression from popular to scientific language, must coincide with the natural operation of the rational life. External goods, on the other hand, he consistently treats elsewhere as matter of chance; see *Eth.* x. 10, 1099, b, 20 sqq. vii. 14, 1173, b, 17; *Polit.* vii. 1, 1323, b, 27, c. 13, 1332, a, 29.

[3] *Eth.* v. 2, 1129, b, 1 sqq.; cf. c. 13 *fin.*

[4] ZELL. *Ph. d. Gr.* i. pp. 506, 861, 3. Whether Aristotle includes the Cynics is not clear; we might conclude so from *Eth.* x. 1; cf. *ibid.* i. 262, 2. For Aristotle's doctrine of pleasure see the full discussion, *Eth.* x. 1–5, vii. 12–15. It is sufficient to quote x. 2, 1173, a, 15: λέγουσι δὲ τὸ μὲν ἀγαθὸν ὡρίσθαι, τὴν δ' ἡδονὴν ἀόριστον εἶναι, ὅτι δέχεται τὸ μᾶλλον καὶ τὸ ἧττον (PLATO, *Phileb.* 27, E sqq. 30, E sq. and other passages, see ZELL. *Ph. d. Gr.* i. 506); but the same is true of the virtues or of health. It is further asserted that pleasure is a motion and a becoming (cf. *Ph. d. Gr.* i. 506, 3): but if it were a

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motion it must continue for a certain lapse of time, and therefore, like all motion, have a definite velocity; if a becoming, it must have a definite product; but neither of these is the case: pleasure is produced by a motion, but it is not itself a motion (*ibid.* l. 29 sqq. c. 3, 1174, a, 19 sqq.). Furthermore, every pleasure involves a pain: it is a satisfaction, and every satisfaction presupposes a want but there are enjoyments which involve no pain, and do not consist in satisfaction of a want (these last, however, are merely causes of pleasure, not the pleasure itself (*ibid.* 1173, b, 7 sqq. vii. 15, 1154, b, 15). Lastly, there are evil pleasures; but it does not follow for this reason that all pleasure is evil (x. 2, 1173, b, 20 sqq. c. 5, 1175, b, 24 sqq. vii. 13 f. 1153, a, 17–35, b, 7–13).

[1] *Eth.* x. 3 *init.*: pleasure is like intuitive perception, complete at every moment of time: ὅλον γὰρ τί ἐστι καὶ κατ' οὐδένα χρόνον λάβοι τις ἂν ἡδονὴν ἧς ἐπὶ πλείω χρόνον γινομένης τελειωθήσεται τὸ εἶδος. c. 4, 1174, a, 20: κατὰ πᾶσαν γὰρ αἴσθησίν ἐστιν ἡδονὴ, ὁμοίως δὲ διάνοιαν καὶ θεωρίαν . . . τελειοῖ δὲ τὴν ἐνέργειαν ἡ ἡδονή. 1174, b, 31: τελειοῖ δὲ τὴν ἐνέργειαν ἡ ἡδονὴ οὐχ ὡς ἡ ἕξις ἐνυπάρχουσα [as this particular form of activity itself, as, for instance, virtue], ἀλλ' ὡς ἐπιγιγνόμενόν τι τέλος οἷον τοῖς ἀκμαίοις ἡ ὥρα. It lasts, therefore, as long as the activity in question continues as it was, but changes and fades with the activity itself, which in man can never but be an intermittent one (cf. vii. 15, 1154, b, 20 sqq.), c. 5, 1075, a, 20: ἄνευ τε γὰρ ἐνεργείας οὐ γίνεται ἡδονὴ, πᾶσάν τε ἐνέργειαν τελειοῖ ἡ ἡδονή· ὅθεν δοκοῦσι καὶ τῷ εἴδει διαφέρειν· τὰ γὰρ ἕτερα τῷ εἴδει ὑφ' ἑτέρων οἰόμεθα τελειοῦσθαι. This is further developed in the passage that follows, prominence being given to the fact that every activity obtains from the pleasure springing from it a heightened energy and power of endurance, whereas it is disturbed by that which proceeds from another; vii. 14, 1153, b, 14; see *infra.* The statement, *Rhet.* i. 11 *init.* is less accurate: ὑποκείσθω δ' ἡμῖν εἶναι τὴν ἡδονὴν κίνησίν τινα τῆς ψυχῆς καὶ κατάστασιν ἀθρόαν καὶ αἰσθητὴν εἰς τὴν ὑπάρχουσαν φύσιν, λύπην δὲ τοὐναντίον. For on the one hand, strictly speak-

nobler an activity the higher the pleasure that accompanies it. Thought and moral action afford the purest pleasure,[1] and the blessedness of God is nothing but the pleasure which springs from the most perfect activity.[2] The universal pursuit of pleasure, therefore, according to Aristotle is an absolute necessity, and is, indeed, nothing else than the instinct of life.[3] Pleasure cannot, it is true, be the highest good itself;[4] and a distinction is made between the different kinds of pleasure, each of which has a value assigned to it in direct proportion to the value of the activity which produces it; only the pleasure of the virtuous man is declared to be true and truly human.[5] Nevertheless, Aristotle is far from excluding pleasure in general from the conception of happiness, or assigning to it the subordinate place which Plato had marked out for it.

We have now to consider in what relation these different conditions of happiness stand to one another. That the most indispensable element of it—the one in which the essence of happiness must primarily be sought—can only be the scientific and moral activity of the soul, is often enough asserted by Aristotle. In treating, for instance, of the relation between activity

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ing, Aristotle does not regard the soul as moved at all, and, on the other, pleasure, according to the passage just quoted, is not a motion, but the consequence of a motion. This definition is again referred to, *M. Mor.* ii. 7, 1205, b, 6.

[1] *Metaph.* xii. 7, 1072, b, 16, 24; *Eth.* x. 2, 1174, a, 4, c. 4, 1174, b, 20, c. 7, 1177, a, 22, b, 20, i. 9, 1099, a, 7–29, vii. 13, 1153, a, 20.

[2] *Metaph.* ibid.; *Eth.* vii. 15, 1154, b, 25; see p. 398, n. 5, *sup.*

[3] vii. 14, 1153, b, 25–32, x. 2, 1172, b, 35 sqq. c. 4 sq. 1175, a, 10–21, ix. 9, 1170, a, 19.

[4] See p. 140, *supra.*

[5] x. 2, 1173, b, 20 sqq. c. 4 *init.* c. 5, 1175, a, 21 sqq. b, 24, 36 sqq. 1176, a, 17, c. 7, 1177, a, 23, i. 9, 1099, a, 11, vii. 14, 1153, b, 29 sqq. and n. 1, *supra.*

and pleasure, he asserts the unconditioned superiority of the former as definitely as could be desired. A life devoted to enjoyment seems to him unworthy of man. The only activity which he admits to be properly human is the practical: the only one that is more than human is the theoretic.[1] Pleasure is not the end and motive of our actions, but only a necessary concomitant of activity according to nature. If the two could be separated, a good man would unconditionally prefer activity without pleasure to pleasure without activity;[2] but as a matter of fact it is of the very essence of virtue that we cannot separate pleasure from it, and that we find immediate satisfaction in virtuous activity without any addition of pleasure from without.[3] From this point of view the purity of Aristotle's ethics and the distinctness of his utterances are beyond suspicion. His account of external goods might with more reason be accused of making man too dependent upon merely natural and accidental advantages. Yet even these he only recognises in so much and in so far as they are the indispensable conditions of a perfect life and the instruments of moral activity;[1] and in this he is undoubtedly right. On the other hand, he is far from wishing to represent man as the sport of fortune. He is convinced that man's happiness and misery depend upon his spiritual and moral condition; that here alone we can look for the foundation of lasting satisfaction; that the happiness of the virtuous man cannot easily be shaken by external fortune or changed into misery by the hardest lot.[2] Aristotle declares as unhesitatingly as Plato[3] that the true goods are those of the soul: external and physical goods, on the other hand, are valuable only as means to the former.[1] He even expressly says that since true self-love consists in the effort after higher goods, it does not hesitate for the sake of friends and country to sacrifice all outward advantage and even life itself. Yet in all such cases the highest reward—that of the morally beautiful action—is reaped by the doer of it, since a great and beautiful action is of more value and affords a higher happiness than a long life which has accomplished nothing great.[2] Similarly, he holds that it is better to suffer than to do wrong, for in the former case it is only our body or property that suffers, in the latter it is our character.[1] Aristotle thus keeps fast hold throughout of the principle with which he started in the investigation of the highest good—namely, that happiness consists primarily and essentially in acting according to reason, or in the exercise of a perfected virtue. Other goods can claim to be considered as good only *sub modo*: in so far as they are a natural product of this activity, like pleasure, or a means to its attainment, like outward and physical goods. Should, however, a case occur in which a choice must be made between the different goods, all others must give way before the moral and spiritual, since they alone are absolutely and unconditionally good.[2]

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[1] See p. 140 sqq. *supra*.

[2] *Eth.* x. 2 *fin.*: οὐδείς τ' ἂν ἕλοιτο ζῆν παιδίου διάνοιαν ἔχων διὰ βίου, ἡδόμενος ἐφ' οἷς τὰ παιδία ὡς οἷόν τε μάλιστα, οὐδὲ χαίρειν ποιῶν τι τῶν αἰσχίστων, μηδέποτε μέλλων λυπηθῆναι. περὶ πολλά τε σπουδὴν ποιησαίμεθ' ἂν καὶ εἰ μηδεμίαν ἐπιφέροι ἡδονήν, οἷον ὁρᾶν, μνημονεύειν, εἰδέναι, τὰς ἀρετὰς ἔχειν. εἰ δ' ἐξ ἀνάγκης ἕπονται τούτοις ἡδοναί, οὐδὲν διαφέρει· ἑλοίμεθα γὰρ ἂν ταῦτα καὶ εἰ μὴ γίνοιτ' ἀπ' αὐτῶν ἡδονή. c. 6, see p. 142, n. 3, *supra*.

[3] *Ibid.* i. 9, 1099, a, 7: ἔστι δὲ καὶ ὁ βίος αὐτῶν καθ' αὑτὸν ἡδύς . . . τοῖς δὲ φιλοκάλοις ἐστὶν ἡδέα τὰ φύσει ἡδέα. τοιαῦτα δ' αἱ κατ' ἀρετὴν πράξεις, ὥστε καὶ τούτοις εἰσὶν ἡδεῖαι καὶ καθ' αὑτάς. οὐδὲν δὴ προσδεῖται τῆς ἡδονῆς ὁ βίος αὐτῶν ὥσπερ περιάπτου τινὸς, ἀλλ' ἔχει τὴν ἡδονὴν ἐν ἑαυτῷ. πρὸς τοῖς εἰρημένοις γὰρ οὐδ' ἐστὶν ἀγαθὸς ὁ μὴ χαίρων ταῖς καλαῖς πράξεσιν . . . εἰ δ' οὕτω, καθ' αὑτὰς ἂν εἶεν αἱ κατ' ἀρετὴν πράξεις ἡδεῖαι . . . ἄριστον ἄρα καὶ κάλλιστον καὶ ἥδιστον ἡ εὐδαιμονία, καὶ οὐ διώρισται ταῦτα . . . ἅπαντα γὰρ ὑπάρχει ταῦτα ταῖς ἀρίσταις ἐνεργείαις. *Polit.* vii. 13, 1332, a, 22: τοιοῦτός ἐστιν ὁ σπουδαῖος ᾧ διὰ τὴν ἀρετὴν τὰ ἀγαθά ἐστι τὰ ἁπλῶς ἀγαθά.

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[1] *Eth.* vii. 14, 1153, b, 16: οὐδεμία γὰρ ἐνέργεια τέλειος ἐμποδιζομένη, ἡ δ' εὐδαιμονία τῶν τελείων· διὸ προσδεῖται ὁ εὐδαιμων τῶν ἐν σώματι ἀγαθῶν καὶ τῶν ἐκτὸς καὶ τῆς τύχης, ὅπως μὴ ἐμποδίζηται ταῦτα. οἱ δὲ τὸν τροχιζόμενον καὶ τὸν δυστυχίαις μεγάλαις περιπίπτοντα εὐδαίμονα φάσκοντες εἶναι, ἐὰν ᾖ ἀγαθὸς [the Cynics: cf. *Ph. d. Gr.* i. 258, 3, 267, 4; but perhaps also PLATO: see *ibid.* 743 sq.], ἢ ἑκόντες ἢ ἄκοντες οὐδὲν λέγουσιν. 1154, b, 11: How far have certain bodily enjoyments any value? ἢ οὕτως ἀγαθαὶ αἱ ἀναγκαῖαι, ὅτι καὶ τὸ μὴ κακὸν ἀγαθόν ἐστιν; ἢ μέχρι του ἀγαθαί; *ibid.* i. 9 sq. 1099, a, 32. ἀδύνατον γὰρ ἢ οὐ ῥᾴδιον τὰ καλὰ πράττειν ἀχορήγητον ὄντα. πολλὰ γὰρ πράττεται, καθάπερ δι' ὀργάνων διὰ φίλων καὶ πλούτου &c. b, 27: τῶν δὲ λοιπῶν ἀγαθῶν [besides virtue] τὰ μὲν ὑπάρχειν ἀναγκαῖον, τὰ δὲ συνεργὰ καὶ χρήσιμα πέφυκεν ὀργανικῶς. *Polit.* vii. 1, 1323, b, 40: βίος μὲν ἄριστος, καὶ χωρὶς ἑκάστῳ καὶ κοινῇ ταῖς πόλεσιν, ὁ μετὰ ἀρετῆς κεχορηγημένης ἐπὶ τοσοῦτον ὥστε μετέχειν τῶν κατ' ἀρετὴν πράξεων. Cf. p. 144 sq.; *Eth. Eud.* i. 2 *fin.*

[2] *Eth.* i. 11, 1100, b, 7: τὸ μὲν ταῖς τύχαις ἐπακολουθεῖν οὐδαμῶς ὀρθόν· οὐ γὰρ ἐν ταύταις τὸ εὖ ἢ κακῶς, ἀλλὰ προσδεῖται τούτων ὁ ἀνθρώπινος βίος, καθάπερ εἴπαμεν, κύριαι δ' εἰσὶν αἱ κατ' ἀρετὴν ἐνέργειαι τῆς εὐδαιμονίας, αἱ δ' ἐναντίαι τοῦ ἐναντίου . . . περὶ οὐδὲν γὰρ οὕτως ὑπάρχει των ἀνθρωπίνων ἔργων βεβαιότης ὡς περὶ τὰς ἐνεργείας τὰς κατ' ἀρετήν· μονιμώτεραι γὰρ καὶ τῶν ἐπιστημῶν αὗται δοκοῦσιν εἶναι. 1101, a, 5: ἄθλιος μὲν οὐδέποτε γένοιτ' ἂν ὁ εὐδαίμων, οὐ μὴν μακάριός γε, ἂν Πριαμικαῖς τύχαις περιπέσῃ. οὐδὲ ποικίλος γε καὶ εὐμετάβολος: his happiness will be disturbed only by many grievous misfortunes, from which he will again recover only with difficulty.

[3] *Laws*, v. 743, E; *Gorg.* 508, D sqq.; cf. *Ph. d. Gr.* i. p. 505 sq.

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[1] *Eth.* i. 8, 1098, b, 12: *νενεμημένων δὴ τῶν ἀγαθῶν τριχῇ, καὶ τῶν μὲν ἐκτὸς λεγομένων, τῶν δὲ περὶ ψυχὴν καὶ σῶμα, τὰ περὶ ψυχὴν κυριώτατα λέγομεν καὶ μάλιστα ἀγαθά.* *Polit.* vii. 1, 1323, a, 24: the happy man must possess all three classes of goods; the only question is, in what degree and proportion. In respect of virtue, most people are very easily contented (*τῆς ἀρετῆς ἔχειν ἱκανὸν εἶναι νομίζουσιν ὁποσονοῦν*); with riches. power, and honour, on the other hand, there is no satisfying them. We must point out to them, *ὅτι κτῶνται καὶ φυλάττουσιν οὐ τὰς ἀρετὰς τοῖς ἐκτὸς, ἀλλ' ἐκεῖνα ταύταις, καὶ τὸ ζῆν εὐδαιμόνως . . . ὅτι μᾶλλον ὑπάρχει τοῖς τὸ ἦθος μὲν καὶ τὴν διάνοιαν κεκοσμημένοις εἰς ὑπερβολὴν, ἢ τοῖς ἐκεῖνα μὲν κεκτημένοις πλείω τῶν χρησίμων, ἐν δὲ τούτοις ἐλλείπουσιν.* Material possessions, like every instrument, have a natural limit imposed by the purpose for which they are used; increased beyond this limit they are useless or mischievous; spiritual goods, on the other hand, are valuable in proportion to their greatness. If the soul is of more value than the body and external things, the goods of the soul must be of more value than bodily and external goods. *ἔτι δὲ τῆς ψυχῆς ἕνεκεν ταῦτα πέφυκεν αἱρετὰ καὶ δεῖ πάντας αἱρεῖσθαι τοὺς εὖ φρονοῦντας, ἀλλ' οὐκ ἐκείνων ἕνεκεν τὴν ψυχήν.* The blessedness of the gods shows that happiness depends for its amount upon the degree of virtue and insight, *ὃς εὐδαίμων μέν ἐστι καὶ μακάριος, δι' οὐθὲν δὲ τῶν ἐξωτερικῶν ἀγαθῶν ἀλλὰ δι' αὑτὸν αὐτὸς καὶ τῷ ποιός τις εἶναι τὴν φύσιν*, and accordingly we distinguish *εὐδαιμονία* from *εὐτυχία*.

[2] *Eth.* ix. 8, 1169, a, 6 sqq., where, among other things (see especially the passage cited, p. 132). it is said, 9: *τὰ κάλλιστα πράττειν κοινῇ τ' ἂν πάντ' εἴη τὰ δέοντα* [?] *καὶ ἰδίᾳ ἑκάστῳ τὰ μέγιστα τῶν ἀγαθῶν, εἴπερ ἡ ἀρετὴ τοιοῦτόν ἐστιν.* 31: *εἰκότως δὴ δοκεῖ σπουδαῖος εἶναι, ἀντὶ πάντων αἱρούμενος τὸ καλόν.*

If, then, virtue is the essential condition of happiness, the problem of Ethics is to investigate the nature of virtue and to exhibit its constituent parts;[3] the question being of course confined to spiritual perfection.[4] Now this, like spiritual activity itself, is of a twofold nature: intellectual (*διανοητική*) and moral (*ἠθική*). The former relates to the activity of reason as such, the latter to the control of the irrational elements of the soul by the rational. The one has its seat in thought, the other in will.[1] Ethics has to do with the latter.[2]

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[1] *Eth.* v. 15, 1138, a, 28: it is an evil both to suffer injustice wrong and to do it, the former being an ἔλαττον, the latter a πλέον ἔχειν τοῦ μέσου, but to do injustice is worse, as it alone is μετὰ κακίας.

[2] We have already seen this (p. 149), and shall find further in his theory of virtue that Aristotle admits only those as genuine virtues which seek their end in the moral activity itself; *Eth.* iv 2 *init.*: αἱ δὲ κατ' ἀρετὴν πράξεις καλαὶ καὶ τοῦ καλοῦ ἕνεκα . . . ὁ δὲ διδοὺς . . . μὴ τοῦ καλοῦ ἕνεκα ἀλλὰ διά τιν' ἄλλην αἴτιαν, οὐκ ἐλευθέριος ἀλλ' ἄλλος τις ῥηθήσεται.

[3] *Eth.* i. 13: ἐπεὶ δ' ἐστὶν ἡ εὐδαιμονία ψυχῆς ἐνέργειά τις κατ' ἀρετὴν τελείαν, περὶ ἀρετῆς ἐπισκεπτέον· τάχα γὰρ οὕτως ἂν βέλτιον καὶ περὶ τῆς εὐδαιμονίας θεωρήσαιμεν.

[4] By the word ἀρετὴ the Greek meant, as is well known, not only moral excellence but every accomplishment or perfection that belonged to person or thing. In this sense it is used by Aristotle, *e.g.* *Metaph.* v. 16, 1021, b, 20 sqq.; *Eth.* ii. 5 *init.* and *passim.* Here, however, where we are dealing with human happiness it can only be a question of spiritual excellences; *Eth. ibid.* 1102, a, 13: περὶ ἀρετῆς δὲ ἐπισκεπτέον ἀνθρωπίνης δῆλον ὅτι. καὶ γὰρ τἀγαθὸν ἀνθρώπινον

2. *Moral Virtue.*

To aid us in the investigation of the nature of Moral Virtue, Aristotle begins by indicating where we must look for virtue in general. It is not an emotion or a mere faculty, but a definite quality of mind (*ἕξις*).[3] Emotions as such are not the object of

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ἐζητοῦμεν καὶ τὴν εὐδαιμονίαν ἀνθρωπίνην. ἀρετὴν δὲ λέγομεν ἀνθρωπίνην οὐ τὴν τοῦ σώματος, ἀλλὰ τὴν τῆς ψυχῆς· καὶ τὴν εὐδαιμονίαν δὲ ψυχῆς ἐνέργειαν λέγομεν.

[1] After discussing (*Eth.* i. 13) the difference between the rational and the irrational element in the soul, and distinguishing two kinds of the rational, that to which rationality attaches in a primitive, and that to which it attaches in a derivative, sense, thought and desire (see p. 114, n. 4, *supra*), Aristotle continues, 1103, a, 3: *διορίζεται δὲ καὶ ἡ ἀρετὴ κατὰ τὴν διαφορὰν ταύτην· λέγομεν γὰρ αὐτῶν τὰς μὲν διανοητικὰς τὰς δὲ ἠθικάς, σοφίαν μὲν καὶ σύνεσιν καὶ φρόνησιν διανοητικάς, ἐλευθεριότητα δὲ καὶ σωφροσύνην ἠθικάς.* He returns to this distinction at the beginning of *Eth.* ii. 1, and vi. 2. Ethical virtue is thus regarded as the product of desire ruled by reason, *i.e.* of will (see p. 114, *supra*), a view of it which is consistently maintained throughout.

[2] This is obvious, not only from the name of this science and from isolated statements which describe *πρᾶξις* as its subject, *e.g.* those referred to p. 181, n. 3, and *Eth.* ii. 2, 1104, a, 1, but from the plan of the *Nicomachean Ethics* as a whole, which must have been different had the object been the proportionate treatment of dianoëtic and ethical virtue. On this point and on the discussion of the dianoëtic virtues in the sixth book, see *infra.*

[3] The relation of these three to one another is explained *Eth.* ii 4 *init.*: *ἐπεὶ οὖν τὰ ἐν τῇ ψυχῇ γινόμενα τρία ἐστὶ, πάθη δυνάμεις ἕξεις, τούτων ἂν τι εἴη ἡ ἀρετή· λέγω δὲ πάθη μὲν ἐπιθυμίαν, ὀργὴν, φόβον, θράσος, φθόνον, χαρὰν, φιλίαν, μῖσος, πόθον, ζῆλον, ἔλεον, ὅλως οἷς ἕπεται ἡδονὴ ἢ λύπη, δυνάμεις δὲ καθ' ἃς παθητικοὶ τούτων λεγόμεθα,*

praise or blame. In themselves they cannot make us either good or bad. They are involuntary, whereas virtue presupposes an activity of the will. They indicate certain movements: virtue and vice, on the other hand, are permanent states. Nor can a mere faculty be the object of moral judgment. Faculty is innate; virtue and vice are acquired.[1] These differ finally from a mere faculty as well as from science (and art) in this, that while the latter embrace both of two opposites, the former refer exclusively to one: the man who has the power and knowledge of good has the power and knowledge of evil also, but he who *wills* the good cannot also at the same time will the evil. It is equally necessary, on the other hand, to distinguish virtue from mere external action as such. He who would act morally must not only do the right, but he must do it in the right frame of mind.[3] It is this, and not the outward effect, that gives to the action its moral worth.[4] It is just this which makes virtue and moral

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οἷον καθ' ἃς δυνατοὶ ὀργισθῆναι ἢ λυπηθῆναι ἢ ἐλεῆσαι, ἕξεις δὲ καθ' ἃς πρὸς τὰ πάθη ἔχομεν εὖ ἢ κακῶς. On ἕξις cf. p. 285, n. 3, *supra*.

[1] *Ibid.* 1105, b, 28 sqq., ending with the words: ὅ τι μὲν οὖν ἐστὶ τῷ γένει ἡ ἀρετὴ, εἴρηται. Cf. c. 1, 1103, b, 21 sq.

[2] *Eth.* v. 1, 1129, a, 11: οὐδὲ γὰρ τὸν αὐτὸν ἔχει τρόπον ἐπί τε τῶν ἐπιστημῶν καὶ δυνάμεων καὶ ἐπὶ τῶν ἕξεων. δύναμις μὲν γὰρ καὶ ἐπιστήμη δοκεῖ τῶν ἐναντίων ἡ αὐτὴ εἶναι (see p. 224, n. 3, *supra*), ἕξις δ' ἡ ἐναντία τῶν ἐναντίων οὔ, οἷον ἀπὸ τῆς ὑγιείας οὐ πράττεται τὰ ἐναντία, ἀλλὰ τὰ ὑγιεινὰ μόνον.

[3] *Eth.* ii. 3, 1105, a, 28: τὰ δὲ κατὰ τὰς ἀρετὰς γινόμενα οὐκ ἐὰν αὐτά πως ἔχῃ, δικαίως ἢ σωφρόνως πράττεται, ἀλλὰ καὶ ἐὰν ὁ πράττων πως ἔχων πράττῃ. b, 5: τὰ μὲν οὖν πράγματα δίκαια καὶ σώφρονα λέγεται, ὅταν ᾖ τοιαῦτα οἷα ἂν ὁ δίκαιος ἢ ὁ σώφρων πράξειεν· δίκαιος δὲ καὶ σώφρων ἐστὶν οὐχ ὁ ταῦτα πράττων, ἀλλὰ καὶ ὁ οὕτω πράττων ὡς οἱ δίκαιοι καὶ οἱ σώφρονες πράττουσιν. vi. 13, 1144, a, 13 sqq. Aristotle accordingly distinguishes between the just character and the just act, *ibid.* vi. 10, *init. et al.* (see below).

[4] *Ibid.* iv. 2, 1120, b, 7: οὐ γὰρ ἐν τῷ πλήθει τῶν διδομένων τὸ ἐλευθέριον. ἀλλ' ἐν τῇ τοῦ διδόντος ἕξει, αὕτη δὲ κατὰ τὴν οὐσίαν δίδωσιν.

insight so hard: that we are dealing here, not with particular actions, but with the general character of the actor.[1]

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Aristotle defines this character more accurately as a character of the will. In so doing he defines the limits of the moral sphere in both directions, distinguishing moral virtue, which has to do with action, from mere natural and therefore non-moral disposition on the one hand, and from mere knowledge which has no reference to human action on the other. The foundation and presupposition of morality lies in certain natural qualities. In order to be able to act morally, one must first be a man with a certain psychological and physical constitution[2] and with a natural capacity for virtue;[3] for every virtue presupposes certain natural qualities (*φυσικαὶ ἕξεις*), definite impulses and inclinations in which the moral qualities already to a certain extent reside.[4] This natural disposition, however, is not yet moral. It is found, not only in children, but even in the lower animals.[1] When, therefore, Aristotle speaks of physical virtues, he expressly distinguishes these from virtue in the proper sense of the word,[2] which consists in the union of natural impulse with rational insight and its subordination to it.[3] Natural disposition and the operation of natural impulses do not depend upon ourselves, whereas virtue is in our own power. The former are innate in us; the latter is gradually acquired by practice.[4] Aristotle carries this principle of excluding all involuntary moods and inclinations from the moral sphere so far as to extend it to the earlier stages of the moral life itself. He not only excludes emotions such as fear, anger, pity, &c., from the sphere of praise and blame,[5] but he

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[1] *Ibid.* v. 13 *init.*: *οἱ δ' ἄνθρωποι ἐφ' ἑαυτοῖς οἴονται εἶναι τὸ ἀδικεῖν, διὸ καὶ τὸ δίκαιον εἶναι ῥᾴδιον. τὸ δ' οὐκ ἔστιν· συγγενέσθαι μὲν γὰρ τῇ τοῦ γείτονος καὶ πατάξαι τὸν πλησίον καὶ δοῦναι τῇ χειρὶ τὸ ἀργύριον ῥᾴδιον καὶ ἐπ' αὐτοῖς, ἀλλὰ τὸ ὡδὶ ἔχοντας ταῦτα ποιεῖν οὔτε ῥᾴδιον οὔτ' ἐπ' αὐτοῖς. ὁμοίως δὲ καὶ τὸ γνῶναι τὰ δίκαια καὶ τὰ ἄδικα οὐδὲν οἴονται σοφὸν εἶναι, ὅτι περὶ ὧν οἱ νόμοι λέγουσιν οὐ χαλεπὸν ξυνιέναι. ἀλλ' οὐ ταῦτ' ἐστὶ τὰ δίκαια ἀλλ' ἢ κατὰ συμβεβηκὸς, ἀλλὰ πῶς πραττόμενα καὶ πῶς νεμόμενα δίκαια.* To know this is not an easy matter. On the same ground Aristotle adds that the just man cannot act unjustly. Particular outward acts he might indeed perform, *ἀλλὰ τὸ δειλαίνειν καὶ τὸ ἀδικεῖν οὐ τὸ ταῦτα ποιεῖν ἐστὶ, πλὴν κατὰ συμβεβηκὸς, ἀλλὰ τὸ ὡδὶ ἔχοντα ταῦτα ποιεῖν.* Cf. p. 116.

[2] *Polit.* vii. 13, 1332, a, 38.

[3] *Eth.* ii. 1, 1103, a, 23: *οὔτ' ἄρα φύσει οὔτε παρὰ φύσιν ἐγγίνονται αἱ ἀρεταὶ, ἀλλὰ πεφυκόσι μὲν ἡμῖν δέξασθαι αὐτὰς, τελειουμένοις δὲ διὰ τοῦ ἔθους.* *Polit. ibid.*: *ἀγαθοί γε καὶ σπουδαῖοι γίγνονται διὰ τριῶν. τὰ τρία δὲ ταῦτά ἐστι φύσις ἔθος λόγος.*

[4] *Eth.* vi. 13, 1144, b, 4: *πᾶσι γὰρ δοκεῖ ἕκαστα τῶν ἠθῶν ὑπάρχειν φύσει πως· καὶ γὰρ δίκαιοι καὶ σωφρονικοὶ καὶ ἀνδρεῖοι καὶ τἆλλα ἔχομεν εὐθὺς ἐκ γενετῆς.* (*M. Mor.* i. 35, 1197, b, 38, ii. 3, 1199,

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b, 38, c. 7, 1206, b, 9.) Cf. *Polit.* vii. 7, on the unequal distribution of moral and intellectual capacity in the different nations.

[1] *H. An.* i. 1, 488, b, 12, viii. 1, ix. 1; see p. 38, n. 1, *supra*; *Eth. ibid.*; see n. 3.

[2] τὸ κυρίως ἀγαθὸν — ἡ κυρία ἀρετὴ, *Eth. ibid.*

[3] *Ibid.* 1144, b, 8: καὶ γὰρ παισὶ καὶ θηρίοις αἱ φυσικαὶ ὑπάρχουσιν ἕξεις, ἀλλ' ἄνευ νοῦ βλαβεραὶ φαίνονται οὖσαι . . . ὥσπερ σώματι ἰσχυρῷ ἄνευ ὄψεως κινουμένῳ συμβαίνει σφάλλεσθαι ἰσχυρῶς διὰ τὸ μὴ ἔχειν ὄψιν, οὕτω καὶ ἐνταῦθα· ἐὰν δὲ λάβῃ νοῦν, ἐν τῷ πράττειν διαφέρει. ἡ δ' ἕξις ὁμοία οὖσα τότ' ἔσται κυρίως ἀρετή.

[4] *Eth.* ii. 1, 1103, a, 17: ἡ δ' ἠθικὴ ἀρετὴ ἐξ ἔθους περιγίνεται, ὅθεν καὶ τοὔνομα ἔσχηκε μικρὸν παρεκκλῖνον ἀπὸ τοῦ ἔθους. ἐξ οὗ καὶ δῆλον ὅτι οὐδεμία τῶν ἠθικῶν ἀρετῶν φύσει ἡμῖν ἐγγίνεται· οὐθὲν γὰρ τῶν φύσει ὄντων ἄλλως ἐθίζεται . . . ἔτι ὅσα μὲν φύσει ἡμῖν παραγίνεται, τὰς δυνάμεις τούτων πρότερον κομιζόμεθα, ὕστερον δὲ τὰς ἐνεργείας ἀποδίδομεν. Sight, for example, we do not receive by perception: it is the antecedent condition of perception. τὰς δ' ἀρετὰς λαμβάνομεν ἐνεργήσαντες πρότερον: we become virtuous by moral, vicious by immoral, action. x. 10, 1179, b, 20 (referring, doubtless, as also does i. 10 *init.*, to PLATO'S *Meno*, 70, A, 99, E): γίνεσθαι δ' ἀγαθοὺς οἴονται οἱ μὲν φύσει, οἱ δ' ἔθει, οἱ δὲ διδαχῇ. τὸ μὲν οὖν τῆς φύσεως δῆλον ὡς οὐκ ἐφ' ἡμῖν ὑπάρχει, ἀλλὰ διά τινας θείας αἰτίας τοῖς ὡς ἀληθῶς εὐτυχέσιν ὑπάρχει. On voluntariness as characteristic of moral virtue, *ibid.* ii. 4, 1106, a, 2, iii. 1 *init.*; c. 4 *init.* and p. 115 sq., *supra.*

[5] *Eth.* ii. 4, 1105, b, 28; see p. 154, n. 1, *supra.*

draws a distinction between continence (*ἐγκράτεια*) and virtue, incontinence and vice in the stricter sense.[1] In like manner he regards modesty rather as an emotion than as a virtue.[2] In all these states of mind Aristotle fails to find the universality of consciousness—action proceeding from a principle. He holds that nothing is moral which is not done with rational insight, nothing immoral which is not done in defiance of it.

While virtue is impossible without insight, insight and morality are not identical. As will in general consists of the union of reason and desire,[3] the moral quality of the will must be treated under the same category. Moral virtue is concerned with pleasure and pain, since it has to do with actions and emotions which cause these feelings: pleasure and pain are the primary source of desire,[4] and the criterion of all our actions,[5] to which we refer in a certain sense even the motives of utility and right.[1] Aristotle, therefore, controverts the Socratic doctrine that virtue consists in knowledge.[2] His objection to this view is, broadly speaking, that it neglects the irrational element of the soul, the pathological side of virtue.[3] When he proceeds to a closer investigation of its fundamental principle, he shows that it rests on false presuppositions. Socrates had maintained that it was impossible to do evil knowing that it was evil and hurtful;[4] Aristotle shows, on the contrary, that to say this is to overlook the distinction between purely theoretic and practical knowledge. For, in the first place, he remarks, we must distinguish between the possession of knowledge as mere skill, and knowledge as an activity. I may know that a certain action is good or bad, but this knowledge may in the particular case remain latent, and in this way I may do evil without being conscious at the moment that it is evil. But,

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[1] *Ibid.* vii. 1, 1145, a, 17, 35; *ibid.* c. 9, 1150, b, 35, 1151, a, 27. Moderation, according to these passages, is a *σπουδαία ἕξις*, but not an *ἀρετή*.

[2] *Ibid.* iv. 15, ii. 7, 1108, a, 30: it is praiseworthy, indeed, but not a virtue; it is a *μεσότης ἐν τοῖς πάθεσι*.

[3] On the will, see pp. 113 sq. and p. 126.

[4] On this cf. also pp. 107 sqq.

[5] *Eth.* ii. 2, 1104, b, 8: *περὶ ἡδονὰς γὰρ καὶ λύπας ἐστὶν ἡ ἠθικὴ ἀρετή· διὰ μὲν γὰρ τὴν ἡδονὴν τὰ φαῦλα πράττομεν διὰ δὲ τὴν λύπην τῶν καλῶν ἀπεχόμεθα . . . ἔτι δ' εἰ ἀρεταί εἰσι περὶ πράξεις καὶ πάθη, παντὶ δὲ πάθει καὶ πάσῃ πράξει ἕπεται ἡδονὴ καὶ λύπη, καὶ διὰ τοῦτ' ἂν εἴη ἡ ἀρετὴ περὶ ἡδονὰς καὶ λύπας.* All moral failings spring from desire for pleasure and dislike of pain, and for this very reason are to be counteracted by punishments; *ἰατρεῖαι γάρ τινές εἰσιν, αἱ δὲ ἰατρεῖαι διὰ τῶν ἐναντίων πεφύκασι γίνεσθαι . . . ὑπόκειται ἄρα ἡ ἡδονὴ εἶναι ἡ τοιαύτη περὶ ἡδονὰς καὶ λύπας τῶν βελτίστων πρακτικὴ, ἡ δὲ κακία τοὐναντίον . . . τριῶν γὰρ ὄντων τῶν εἰς τὰς αἱρέσεις καὶ τριῶν τῶν εἰς τὰς φυγὰς, καλοῦ συμφέροντος ἡδέος, καὶ τριῶν τῶν ἐναντίων, αἰσχροῦ βλαβεροῦ λυπηροῦ, περὶ πάντα μὲν ταῦτα ὁ ἀγαθος κατορθωτικός ἐστιν ὁ δὲ κακὸς ἁμαρτητικὸς, μάλιστα δὲ περὶ τὴν ἡδονήν· κοινή τε γὰρ αὕτη τοῖς ζῴοις καὶ πᾶσι τοῖς ὑπὸ τὴν αἵρεσιν παρακολουθεῖ· καὶ γὰρ τὸ καλὸν καὶ τὸ συμφέρον ἡδὺ φαίνεται . . . κανονίζομεν δὲ καὶ τὰς πράξεις, οἱ μὲν μᾶλλον οἱ δ' ἧττον, ἡδονῇ καὶ λύπῃ . . . ὥστε . . . περὶ ἡδονὰς καὶ λύπας πᾶσα ἡ πραγματεία καὶ τῇ ἀρετῇ καὶ τῃ*

πολιτικῇ· ὁ μὲν γὰρ εὖ τούτοις χρώμενος ἀγαθὸς ἔσται, ὁ δὲ κακῶς κακός. II. 5, 1106, b, 16: *λέγω δὲ τὴν ἠθικὴν* [*ἀρετήν*]*· αὕτη γάρ ἐστι περὶ πάθη καὶ πράξεις.* *Ibid.* 1. 24, iii. 1 *init.* (see p. 117, n. 2, *sup.*), vii. 12, 1152, b, 4, 1172, b, 21; x. 7; see p. 143, n. 1, *supra.* *Phys.* vii. 3, 247, a, 23: *καὶ τὸ ὅλον τὴν ἠθικὴν ἀρετὴν ἐν ἡδοναῖς καὶ λύπαις εἶναι συμβέβηκεν· ἢ γὰρ κατ' ἐνέργειαν τὸ τῆς ἡδονῆς ἢ διὰ μνήμην ἢ ἀπὸ τῆς ἐλπίδος.* *Pol.* viii. 5, 1340, a, 14.

[1] This statement (*Eth.* ii. 2: see preced. *n.*) might seem surprising, as Aristotle draws a very clear distinction between pleasure and the good (*v.* p. 140 sq.). It must be taken, however, in the light of what is said above, p. 149, n. 3. The thought of the good operates upon the will through the medium of feeling, the good presenting itself as something desirable and affording pleasure and satisfaction.

[2] *Eth.* vi. 13, 1144, b, 17 sqq. vii. 5, 1146, b, 31 sqq. cf. c. 3 *init.* x. 10, 1179, b, 23; *Eud.* i. 5, 1216, b, vii. 13 *fin.*; *M. Mor.* i. 1, 1182, a, 15, c. 35, 1198, a, 10.

[3] As may be concluded from the statements in *Eth.* vi. 13, c, 2, 1139, a, 31, and especially *M. M.* i. 1. Cf. p. 157, n. 5, *supra.*

[4] See *Ph. d. Gr.* i. p. 118 sq.

in the second place, concerning the content of this knowledge, we have to distinguish between the general principle and its practical application. For if every action consists in bringing a particular case under a general law,[1] it is quite conceivable that the agent, while he knows and presents to himself the moral law in its universality, yet may neglect the application of it to the particular case and permit himself to be here determined by sensual desire instead of by moral principle.[2] While, therefore, Socrates had asserted that no one is voluntarily wicked, Aristotle maintains, on the contrary, that man is master of his actions, and even makes this voluntariness of action the distinguishing mark of the practical as opposed to the theoretic life.[3] In like manner practical activity is distinguished from artistic. In art the chief thing is knowledge or skill to produce certain works : in conduct, it is will. In the former the object is that the production should be of a certain character; in the latter the essential thing is that the agent himself should be so. There the man who errs intentionally is the better man; here it is the man who errs unintentionally.[4]

Moral activity, then, according to Aristotle,[5] consists in the union of the merely natural activity of impulse with the rational activity of insight, or, more to which we refer in a certain sense even the motives of utility and right.[1] Aristotle, therefore, controverts the Socratic doctrine that virtue consists in knowledge.[2] His objection to this view is, broadly speaking, that it neglects the irrational element of the soul, the pathological side of virtue.[3] When he proceeds to a closer investigation of its fundamental principle, he shows that it rests on false presuppositions. Socrates had maintained that it was impossible to do evil knowing that it was evil and hurtful;[4] Aristotle shows, on the contrary, that to say this is to overlook the distinction between purely theoretic and practical knowledge. For, in the first place, he remarks, we must distinguish between the possession of knowledge as mere skill, and knowledge as an activity. I may know that a certain action is good or bad, but this knowledge may in the particular case remain latent, and in this way I may do evil without being conscious at the moment that it is evil. But,

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[1] Cf. p. 110, n. 1, *supra*.

[2] *Eth.* vii. 5, which deals primarily with excess. Another characteristic of action as distinguished from knowledge—which, however, Aristotle does not mention in this connection—has already been mentioned, p. 183, n. 2, and p. 107, n. 2, *supra*.

[3] See pp. 115 sqq. *supra*.

[4] *Eth.* ii. 3 (see i. 6), vi. 5, 1140, b, 22; *Metaph.* vi. 1, 1025, b, 22.

[5] *Eth.* vi. 5, 1140, b, 22 cf. v. i. 1129, a, 83 *Metaph.* v. 29 *fin.*

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Moral activity, then, according to Aristotle,[5] consists in the union of the merely natural activity of impulse with the rational activity of insight, or, more that which avoids the extremes of excess and defect, and thus preserves the proper mean:[1] and conversely, wrong activity is that which deviates on one side or the other from this boundary line.[2] In further determining the nature and position of the 'proper mean,' we have to take into account, not merely the object of our action, but, what is much more important, our own personal nature.[3] The problem of morality is to strike the proper mean relating to ourselves: in feeling and action neither to overstep or fall short of the limit set by the character of the agent, the object and the circumstances.[4] Aristotle admits, indeed, that this description

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[2] *Eth.* vii. 5, which deals primarily with excess. Another characteristic of action as distinguished from knowledge—which, however, Aristotle does not mention in this connection—has already been mentioned, p. 183, n. 2, and p. 107, n. 2, *supra*.

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[5] *Eth.* vi. 5, 1140, b, 22 cf. v. i. 1129, a, 83 *Metaph.* v. 29 *fin.*

πᾶσα ἀρετὴ, οὗ ἂν ᾖ ἀρετὴ, αὐτό τε εὖ ἔχον ἀποτελεῖ καὶ τὸ ἔργον αὐτοῦ εὖ ἀποδίδωσιν . . . εἰ δὴ τοῦτ' ἐπὶ πάντων οὕτως ἔχει, καὶ ἡ τοῦ ἀνθρώπου ἀρετὴ εἴη ἂν ἕξις ἀφ' ἧς ἀγαθὸς ἄνθρωπος γίνεται καὶ ἀφ' ἧς εὖ τὸ ἑαυτοῦ ἔργον ἀποδώσει.

[1] *Ibid.* 1106, b, 8: εἰ δὴ πᾶσα ἐπιστήμη οὕτω τὸ ἔργον εὖ ἐπιτελεῖ, πρὸς τὸ μέσον βλέπουσα καὶ εἰς τοῦτο ἄγουσα τὰ ἔργα (. . . ὡς τῆς μὲν ὑπερβολῆς καὶ τῆς ἐλλείψεως φθειρούσης τὸ εὖ, τῆς δὲ μεσότητος σωζούσης) . . . ἡ δ' ἀρετὴ πάσης τέχνης ἀκριβεστέρα καὶ ἀμείνων ἐστὶν, ὥσπερ καὶ ἡ φύσις, τοῦ μέσου ἂν εἴη στοχαστική.

[2] Aristotle remarks that either the virtue or the vice have not unfrequently no name to designate them in common language; *Eth.* ii. 7, 1107, b, 1, 7, 30, 1108, a, 5, 16, iii. 10, 1115, b, 25, c. 14, 1119, a, 10, iv. 1, 1119, b, 34, c. 10 sq., 1125, b, 17, 26, c. 12, 1126, b, 19, c. 13, 1127, a, 14.

[3] *Ibid.* 1106, a, 26: ἐν παντὶ δὴ συνεχεῖ καὶ διαιρετῷ ἔστι λαβεῖν τὸ μὲν πλεῖον τὸ δ' ἔλαττον τὸ δ' ἴσον, καὶ ταῦτα ἢ κατ' αὐτὸ τὸ πρᾶγμα ἢ πρὸς ἡμᾶς· τὸ δ' ἴσον μέσον τι ὑπερβολῆς καὶ ἐλλείψεως. λέγω δὲ τοῦ μὲν πράγματος μέσον τὸ ἴσον ἀπέχον ἀφ' ἑκατέρου τῶν ἄκρων, ὅπερ ἐστὶν ἓν καὶ ταὐτὸν πᾶσι, πρὸς ἡμᾶς δὲ ὃ μήτε πλεονάζει μήτε ἐλλείπει. τοῦτο δ' οὐχ ἓν οὐδὲ ταὐτὸν πᾶσιν. If, for example, two cutlets are too little food, while ten are too much, the μέσον κατὰ τὸ πρᾶγμα would be six: this amount, however, might be too much for one, too little for another: οὕτω δὴ πᾶς ἐπιστήμων τὴν ὑπερβολὴν μὲν καὶ τὴν ἔλλειψιν φεύγει, τὸ δὲ μέσον ζητεῖ καὶ τοῦθ' αἱρεῖται, μέσον δὲ οὐ τὸ τοῦ πράγματος ἀλλὰ τὸ πρὸς ἡμᾶς.

[4] *Ibid.* 1106, b, 16 (after the words quoted in n. 1, *supra*): λέγω δὲ τὴν ἠθικήν [ἀρετήν]· αὕτη γάρ ἐστι περὶ πάθη καὶ πράξεις, ἐν δὲ τούτοις ἐστὶν ὑπερβολὴ καὶ ἔλλειψις καὶ τὸ μέσον. οἷον καὶ φοβηθῆναι καὶ θαρρῆσαι καὶ ἐπιθυμῆσαι καὶ ὀργισθῆναι καὶ ἐλεῆσαι καὶ ὅλως ἡσθῆναι καὶ λυπηθῆναι ἔστι καὶ μᾶλλον καὶ ἧττον, καὶ ἀμφότερα οὐκ εὖ· τὸ δ' ὅτε δεῖ καὶ ἐφ' οἷς καὶ πρὸς οὓς καὶ οὗ ἕνεκα καὶ ὡς δεῖ,

is still a very general one, and that we have to look closer if we would discover the proper mean, and with it the right criterion of action (the *ὀρθὸς λόγος*);[1] but he can only here refer us to practical insight, whose business it is to mark out what is right in particular cases; and he therefore defines virtue as 'that quality of the will which preserves the mean suitably to our nature, conformably to a reasonable definition, such as the man of insight would give.'[2]

From this point of view Aristotle goes on to deal with the particular virtues, without any attempt to deduce them from any one definite principle. Even the suggestions towards such a deduction which were to be found in his own theory as above stated, he left on one side. Seeing that he had investigated the idea of 'Happiness,' and had found in 'Virtue' the essential means thereto, he might have made an attempt to define the various kinds of activity which enable us to reach this end, and so have sought to arrive at the main kinds of 'Virtue.' He does, however, nothing of the kind. Even where he gives us certain indications of the points of view from which he deals with the order of the

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μέσον τε καὶ ἄριστον, ὅπερ ἐστὶ τῆς ἀρετῆς. ὁμοίως δὲ καὶ περὶ τὰς πράξεις ἐστὶν ὑπερβολὴ καὶ ἔλλειψις καὶ τὸ μέσον . . . . μεσότης τις ἄρα ἐστὶν ἡ ἀρετή, στοχαστική γε οὖσα τοῦ μέσου. Cf. foll. n.

[1] *Eth.* vi. 1: we ought to choose, as before remarked (ii. 5) the *μέσον*, not the *ὑπερβολὴ* or *ἔλλειψις*—*τὸ δὲ μέσον ἐστὶν ὡς ὁ λόγος ὁ ὀρθὸς λέγει.* In everything *ἐστί τις σκοπὸς πρὸς ὃν ἀποβλέπων ὁ τὸν λόγον ἔχων ἐπιτείνει καὶ ἀνίησιν, καί τις ἐστὶν ὅρος τῶν μεσοτήτων, ἃς μεταξύ φαμεν εἶναι τῆς ὑπερβολῆς καὶ τῆς ἐλλείψεως, οὔσας κατὰ τὸν ὀρθὸν λόγον. ἔστι δὲ τὸ μὲν εἰπεῖν οὕτως ἀληθὲν μὲν, οὐθὲν δὲ σαφές . . . διὸ δεῖ καὶ περὶ τὰς τῆς ψυχῆς ἕξεις μὴ μόνον ἀληθὲς εἶναι τοῦτ' εἰρημένον, ἀλλὰ καὶ διωρισμένον τίς τ' ἐστὶν ὁ ὀρθὸς λόγος καὶ τούτου τίς ὅρος.*

[2] *Ibid.* ii. 6 *init.*: *ἔστιν ἄρα ἡ ἀρετὴ ἕξις προαιρετικὴ ἐν μεσότητι οὖσα τῇ πρὸς ἡμᾶς, ὡρισμένη λόγῳ καὶ ὡς ἂν ὁ φρόνιμος ὁρίσειεν.*

ethical virtues in his treatment of them, these points of view are themselves in no way based on any principle.[1]

[1] After defining virtue as μεσότης, Aristotle continues, *Eth.* ii. 7: from the general statement we must turn to particular instances of the principle. περὶ μὲν οὖν φόβους καὶ θάρρη ἀνδρεία μεσότης . . . . περὶ ἡδονὰς δὲ καὶ λύπας [those, *i.e.*, as is here hinted, and definitely stated in iii. 13, 1117, b, 27 sqq. of ἁφὴ and γεῦσις] σωφροσύνη . . . . περὶ δὲ δόσιν χρημάτων καὶ λῆψιν . . . ἐλευθριότης; to these belongs also μεγαλοπρέπεια· περὶ δὲ τιμὴν καὶ ἀτιμίαν . . . μεγαλοψυχία, and the corresponding anonymous virtue the ὑπερβολὴ of which is ambition. ἔστι δὲ καὶ περὶ ὀργὴν . . . μεσότης, which he calls πρᾳότης. Furthermore, there are three μεσότητες which relate to κοινωνία λόγων καὶ πράξεων, one to τὸ ἀληθὲς in these (ἀλήθεια), the two others to τὸ ἡδὺ, the one (p. 169, n. 6, *infra*), ἐν παιδιᾷ, the other (p. 169, n. 4, *infra*), ἐν πᾶσι τοῖς κατὰ τὸν βίον. Of bravery and σωφροσύνη it is further remarked, iii. 13: δοκοῦσι γὰρ τῶν ἀλόγων μερῶν αὗται εἶναι αἱ ἀρεταί. This classification, however, is a loose one, nor is any clearly defined principle discoverable in it. HÄCKER'S attempt in his interesting essay (*Das Eintheilungs- und Anordnungsprincip der moralischen Tugendreihe in der nikomachischen Ethik*, Berl. 1863) to show that Aristotle is guided by such a principle imports, apparently, more into his account than is admissible. According to this view, Aristotle intended to indicate in the first place those virtues which consist in the subordination of the lower instincts that are concerned with the mere defence and maintenance of life: bravery the virtue of θυμός, temperance the virtue of ἐπιθυμία. The second group of virtues (liberality, love of honour, gentleness, and justice, which is placed last for special reasons) have for the sphere of their exercise political life in time of peace, and the part which the individual takes in affairs of state, as well as the positions he occupies in it; the third the amenity of life, τὸ εὖ ζῆν. But it is impossible to show that Aristotle founds his classification of the virtues upon this scheme. In the first place, the reason which he himself gives for connecting bravery and self-command with one another is that they stand for the virtues of the irrational parts of a man; this is only to say (unless, with RAMSAUER, we reject the words altogether) that it is suitable to discuss self-command along with bravery because it has been customary since the time of Plato to name these two together as the virtues of θυμὸς and τὸ ἐπιθυμητικὸν respectively. Had he been governed by those principles of classification which Häcker ascribes to him, he must have classed πρᾳότης along with bravery. If the latter is the subordination of the instinct of self, the former is (iv. 11) the μεσότης περὶ ὀργάς: but anger springs from the instinct of revenge, which, like bravery, has

There is therefore nothing for us to do but to set out, without reference to any exact logical connection, what Aristotle has himself said as to those virtues which he enumerates.

The preliminary proposition, that there are more

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its seat in *θυμὸς* (iv. 11, 1126, a, 19 sqq.; *Rhet.* ii. 2 *init.* 12, 1389, a, 26: *καὶ ἀνδρειότεροι* [*οἱ νέοι*]· *θυμώδεις γὰρ . . . οὔτε γὰρ ὀργιζόμενος οὐδεὶς φοβεῖται*, cf. p. 583, 2), and which, like it (*Eth.* iii. 11, 1116, b, 23 sqq.), we share with the brutes. Anger and bravery, therefore, are so closely related that it is often difficult to distinguish them from one another (*Eth.* ii. 9, 1109, b, 16 sqq., iv. 11, 1126, b, 1, cf. *Rhet.* ii. 5, 1383, b, 7), and in *Rhet.* ii. 8, 1385, b, 30, anger is even called a *πάθος ἀνδρίας*. If, notwithstanding this relationship, the *μεσότης περὶ τὰς ὀργὰς* is said to belong to a different group of virtues from bravery, on the ground that the latter springs only from the instinct 'to preserve the vegetative life,' while anger is concerned chiefly with injuries inflicted upon the honour of a citizen (HÄCKER, p. 15, 18), this is scarcely consistent with the statements of Aristotle. *Eth.* iv. 11, 1125, b, 30, he says expressly of anger: *τὰ δὲ ἐμποιοῦντα πολλὰ καὶ διαφέροντα*, and, on the other hand, of bravery, that it does not consist in not fearing death under any circumstances, but in not fearing death *ἐν τοῖς καλλίστοις*, especially in war (iii. 9, 1115, a, 28), which has a much more direct relation to political life than the loss of merely personal honour. So far indeed, is Aristotle from seeing in bravery only the *μεσότης* of an animal instinct, in anger that is properly directed and controlled that of a higher instinct which is concerned with civil life, that he declares (*Eth.* iii. 11, 1116, b, 23–1117, a, 9): when men despise danger from anger or desire for revenge (*ὀργιζόμενοι, τιμωρούμενοι*) they can no more be called brave than an animal when it rushes in rage [*διὰ τὸν θυμὸν*, which here hardly differs from *ὀργὴ*] upon the huntsman who has wounded it. Nor does the position assigned to the virtues which are concerned with the use of money admit of being explained on the ground that riches always secure a certain social station to its possessor (HÄCKER, p. 16), for there is no allusion in Aristotle to this point of view, although in the case of *μεγαλοπρέπεια* (not, however, of *ἐλευθερίοτης*) mention is made, among other things, of expenditure for public purposes. If, on the other hand, this had been the principle of classification, bravery in war would have found a place in this group. Finally, it cannot be said that the third group concerns *τὸ εὖ ζῆν* any more closely than the other two; for *εὖ ζῆν* in the Aristotelian sense, self-command, liberality and justice, are certainly more important than *τὸ ἡδὺ ἐν παιδιᾷ*.

virtues than one, is established by Aristotle, against the position of Socrates, who had reduced them all to 'Insight.' Aristotle himself admits that all completed Virtue is in its essence and principle one and the same, and that with Insight all other virtues are given.[1] Yet at the same time he shows that the natural basis of virtue—the moral circumstances—must be different in different cases. The will of the slave, for example, is different from the will of the freeman: the will of the woman and the child is not the same as the will of the adult man. Therefore he holds that the moral activity of different individuals must be different. Not only will one individual possess a particular virtue which others do not possess, but it is also true that different demands must be made on each particular class of men.[2] Aristotle says very little (and that not in his *Ethics*, but in his *Œconomics*) of the virtues of the several classes. In the *Ethics* he treats of Virtue in its perfected form, which it assumes in man, whom alone he elsewhere regards as the perfect type of humanity, and it is of this alone that he describes the constituent parts.

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[1] *Eth.* vi. 13, 1144, b, 31: *οὐχ οἷόν τε ἀγαθὸν εἶναι κυρίως ἄνευ φρονήσεως, οὐδὲ φρόνιμον ἄνευ τῆς ἠθικῆς ἀρετῆς.* It appears, indeed, as though the virtues could be separated from one another; *οὐ γὰρ ὁ αὐτὸς εὐφυέστατος πρὸς ἁπάσας, ὥστε τὴν μὲν ἤδη τὴν δ' οὔπω εἰληφὼς ἔσται.* This is not really so: *τοῦτο γὰρ κατὰ μὲν τὰς φυσικὰς ἀρετὰς ἐνδέχεται, καθ' ἃς δὲ ἁπλῶς λέγεται ἀγαθὸς, οὐκ ἐνδέχεται· ἅμα γὰρ τῇ φρονήσει μιᾷ οὔσῃ πᾶσαι ὑπάρξουσιν.*

[2] See preceding n. and *Polit.* vi. 13, 1260, a, 10: *πᾶσιν ἐνυπάρχει μὲν τὰ μόρια τῆς ψυχῆς, ἀλλ' ἐνυπάρχει διαφερόντως . . . ὁμοίως τοίνυν ἀναγκαῖον ἔχειν καὶ περὶ τὰς ἠθικὰς ἀρετάς· ὑποληπτέον δεῖν μὲν μετέχειν πάντας, ἀλλ' οὐ τὸν αὐτὸν τρόπον, ἀλλ' ὅσον ἑκάστῳ πρὸς τὸ αὑτοῦ ἔργον. διὸ τὸν μὲν ἄρχοντα τελέαν ἔχειν δεῖ τὴν ἠθικὴν ἀρετὴν, . . . τῶν δ' ἄλλων ἕκαστον ὅσον ἐπιβάλλει αὐτοῖς. ὥστε φανερὸν ὅτι ἐστὶν ἠθικὴ ἀρετὴ τῶν εἰρημένων πάντων. καὶ οὐχ ἡ αὐτὴ σωφροσύνη γυναικὸς καὶ ἀνδρός,* &c. Although it is not here said that one virtue can exist without the others, and although on the other hand, this is admitted *Eth.* vi. 13 to be the case only with the physical virtues, yet the imperfect virtue of slaves or women must be regarded as an incomplete and partial possession, which excludes the comprehensive virtue of insight, and therefore extends to some and not to others.

Bravery[1] stands at the head of the list of the virtues. He is brave who does not fear a glorious death or the near danger of death, or more generally he who endures, dares or fears what he ought to, for the right object, in the right way and at the right time.[2] The extremes between which Bravery stands as the mean are: on the one side Insensibility and Foolhardiness, and on the other Cowardice.[3] Nearly related to Bravery, but not to be identified with it, are Civil Courage and the courage which springs from compulsion, or anger, or the wish to escape from a pain,[4] or which is founded upon familiarity with the apparently terrible or upon the hope of a favourable result.[5] Self-control[6] follows as the second virtue, which, however, Aristotle limits to the preservation of the proper mean in the pleasures of touch and in the satisfaction of the merely animal and sexual impulses. Next comes Generosity,[1] as the proper mean between Avarice and Extravagance,[2] the attitude in giving and taking external goods which is at once moral and worthy of a free man,[3] and the kindred virtue of Munificence in expenditure.[4] Magnanimity[5] (in his

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[1] *Eth.* iii. 9–12.

[2] C. 9, 1115, a, 33: ὁ περὶ τὸν καλὸν θάνατον ἀδεὴς καὶ ὅσα θάνατον ἐπιφέρει ὑπόγυια ὄντα. c. 10, 1115, b, 17: ὁ μὲν οὖν ἃ δεῖ καὶ οὗ ἕνεκα ὑπομένων καὶ φοβούμενος, καὶ ὡς δεῖ καὶ ὅτε, ὁμοίως δὲ καὶ θαρρῶν, ἀνδρεῖος· κατ᾽ ἀξίαν γάρ, καὶ ὡς ἂν ὁ λόγος, πάσχει καὶ πράττει ὁ ἀνδρεῖος . . . καλοῦ δὴ ἕνεκα ὁ ἀνδρεῖος ὑπομένει καὶ πράττει τὰ κατὰ τὴν ἀνδρείαν. Cf. *Rhet.* i. 9, 1366, b, 11.

[3] C. 10, 1115, b, 24 sqq.

[4] As in suicide, which Aristotle therefore regards as a mark of cowardice; iii. 11, 1116, a, 12. cf. ix. 4, 1166, b, 11.

[5] C. 88 (where, however, 1117, a, 20, the words ἢ καὶ must be omitted). Of these, πολιτικὴ ἀνδρεία most closely resembles true bravery (1116, a, 27), ὅτι δι᾽ ἀρετὴν γίνεται· δι᾽ αἰδῶ γὰρ καὶ διὰ καλοῦ ὄρεξιν (τιμῆς γάρ) καὶ φυγὴν ὀνείδους αἰσχροῦ ὄντος. Nevertheless Aristotle distinguishes between them, πολιτικὴ ἀνδρεία being heteronomous to the extent that the brave deed is not done for its own sake.

[6] Σωφροσύνη, c. 13–15, in contrast to ἀκολασία and to a species of insensibility for which there is no name, as it is not found among men (c. 14, 1119, a, 9; cf. vii. 11 *init.*: Aristotle would perhaps have ascribed this failing, of which he says, εἰ δέ τῳ μηθέν ἐστιν ἡδὺ μηδὲ διαφέρει ἕτερον ἑτέρου, πόρρω ἂν εἴη τοῦ

ἄνθρωπος εἶναι, to the Ascetics of a later time); cf. vii. 8, 1150, a, 19 sqq. and the passages referred to below from book vii. upon ἐγκράτεια and ἀκρασία; *Rhet. ibid* l. 13. In the words with which he opens this discussion, μετὰ δὲ ταύτην [bravery] περὶ σωφροσύνης λέγωμεν· δοκοῦσι γὰρ τῶν ἀλόγων μερῶν αὗται εἶναι αἱ ἀρεταί, Aristotle is referring to Plato's doctrine; he himself has no reason to ascribe bravery, any more than moral virtue as a whole, to the irrational element in the soul.

[1] Or, more correctly, liberality, ἐλευθεριότης.

[2] 'Ανελευθερία and ἀσωτία. The worse and more incurable of these faults is avarice, *Eth.* iv. 3, 1121, a, 19 sqq.

[3] *Eth.* iv. 1–3. The noble spirit in which Aristotle handles this subject may be seen, among other passages, in c. 2 *init.*: αἱ δὲ κατ' ἀρετὴν πράξεις καλαὶ καὶ τοῦ καλοῦ ἕνεκα. καὶ ὁ ἐλευθέριος οὖν δώσει τοῦ καλοῦ ἕνεκα καὶ ὀρθῶς . . . καὶ ταῦτα ἡδέως ἢ ἀλύπως· τὸ γὰρ κατ' ἀρετὴν ἡδὺ ἢ ἄλυπον, ἥκιστα δὲ λυπηρόν ὁ δὲ διδοὺς οἷς μὴ δεῖ, ἢ μὴ τοῦ καλοῦ ἕνεκα ἀλλὰ διά τιν' ἄλλην αἰτίαν, οὐκ ἐλευθέριος ἀλλ' ἄλλος τίς ῥηθήσεται. οὐδ' ὁ λυπηρῶς· μᾶλλον γὰρ ἕλοιτ' ἂν τὰ χρήματα τῆς καλῆς πράξεως, τοῦτο δ' οὐκ ἐλευθερίου.

[4] Μεγαλοπρέπεια, *ibid.* 4–6, which is defined, 1122, a, 23, by the words ἐν μεγέθει πρέπουσα δαπάνη: it stands midway between μικροπρέπεια, on the one hand, and βαναυσία and ἀπειροκαλία on the other. It differs from ἐλευθεριότης in having to do, not only with the right and proper, but with the sumptuous expenditure of money (iv. 4, 1122, b, 10 sqq., where, however, l. 18, we shall have to read, with Cod. L^b M^b, καὶ ἔστιν ἔργου μεγαλοπρέπεια ἀρετὴ ἐν μεγέθει: 'μεγαλοπρέπεια is excellence of work in great matters,' and explain l. 12 as meaning either 'the magnitude here is contributed by the μεγαλοπρεπὴς, being a sort of greatness of liberality in respect to the same objects,' or 'it is the magnitude here which constitutes, so to speak, the greatness in the munificence, &c.;' unless we prefer the surmise of Rassow, *Forsch. üb. d. nikom. Ethik.* 82, who inserts 'λαβούσης' after μέγεθος, which might easily have fallen out owing to the οὔσης which follows, so that the meaning is 'liberality which is directed to the same object attaining a sort of grandeur'). *Rhet.* i. 9, 1366, b, 18.

[5] Μεγαλοψυχία as midway be-

description of which Aristotle has, perhaps, before his mind the example of his great pupil), honourable ambition,[1] Gentleness,[2] the social virtues[3] of Amiability,[4] Simplicity,[5] Geniality[6] in company follow: and to these are added the graces of temperament,[7] Modesty,[8] and righteous Indignation.[9]

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tween meanness of spirit (μικροψυχία) and vanity (χαυνότης), iv. 7–9; *Rhet. ibid.* Μεγαλόψυχος is (1123, b, 2) ὁ μεγάλων αὑτὸν ἀξιῶν ἄξιος ὤν: this virtue, therefore, always presupposes actual excellence.

[1] This virtue is described, *Eth.* iv. 10, as the mean between φιλοτιμία and ἀφιλοτιμία, which is related to μεγαλοψυχία as ἐλευθεριότης is to μεγαλοπρέπεια, but for which there is no proper word.

[2] The μεσότης περὶ ὀργάς, iv. 11. Aristotle calls this virtue πρᾳότης, the corresponding vices ὀργιλότης and ἀοργησία, remarking, however, that all these names are coined by him for the purpose. The πρᾶος is accordingly defined as ὁ ἐφ' οἷς δεῖ καὶ οἷς δεῖ ὀργιζόμενος, ἔτι δὲ καὶ ὡς δεῖ καὶ ὅτε καὶ ὅσον χρόνον. *Ibid.* on the ἀκρόχολος and the χαλεπός.

[3] Which Aristotle himself, iv. 14 *fin.*, comprises under this title.

[4] Using the word to designate the nameless virtue which, *Eth.* iv. 12, is opposed on the one side to complaisance and flattery, on the other to unsociableness and moroseness, and described as the social tact which knows ὁμιλεῖν ὡς δεῖ. Aristotle there remarks that it closely resembles φιλία, but differs from it in not resting upon inclination or dislike towards particular persons. *Eud.* iii. 7, 1233, b, 29, it is simply called φιλία.

[5] The likewise nameless mean between vain-boasting (ἀλαζονεία) and self-depreciation (εἰρωνεία, of which the extreme is seen in the βαυκοπανοῦργος), iv 13.

[6] Εὐτραπελία or ἐπιδεξιότης (iv. 14), the opposites being βωμολοχία and ἀγριότης. Here also it is a question of social tact (cf. 1128, b, 31: ὁ δὴ χαρίεις καὶ ἐλευθέριος οὕτως ἕξει, οἷον νόμος ὢν ἑαυτῷ), with especial reference, however, to the entertainment of society.

[7] Μεσότητες ἐν τοῖς πάθεσι καὶ ἐν τοῖς περὶ τὰ πάθη (ii. 7, 1108, a, 30), called μεσότητες παθητικαὶ, *Eud.* iii. 7 *init.* Among these, *Eud.* iii. 7 classes also φιλία, σεμνότης, ἀλήθεια, and ἁπλότης, εὐτραπελία.

[8] Αἰδώς. See *Eth.* iv. 15, ii. 7 (p. 157, n. 2, *supra*). The modest man, according to these passages, is the mean between the shameless and the bashful man (καταπλήξ). Modesty, however, is not so much a virtue in the proper sense as a praiseworthy affection suitable only for youth, as the adult should do nothing of which he requires to be ashamed.

[9] Only in ii. 7, 1108, a, 35 sqq., where it is described as μεσότης φθόνου καὶ ἐπιχαιρεκακίας;

Justice, however, claims the fullest treatment, and Aristotle has devoted to it the whole of the fifth book of his *Ethics*.[1] Considering the close connection between the *Ethics* and the *Politics*, it was necessary that special attention should be paid to the virtue upon which the maintenance of the commonwealth most directly depends. Justice, however, is not here to be understood in the wider sense in which it is equivalent to social virtue as a whole,[2] but in its narrower meaning, as that virtue which has to do with the distribution of goods, the preservation, namely, of the proper mean[3] or proportion in assigning advantages or disadvantages.[4]

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it concerns joy and sorrow at the fortunes of others, and consists in *τὸ λυπεῖσθαι ἐπὶ τοῖς ἀναξίως εὖ πράττουσιν*. Similarly *Rhet.* ii. 9 *init.*

[1] Cf. on this subject: H. FECHNER, *Ueber den Gerechtigkeitsbegriff d. Arist.* (Lpz. 1855), pp. 27–56; HILDENBRAND, *Gesch. u. System d. Rechts- und Staatsphilosophie*, i. 281–331, who also cites other literature; PRANTL in BLUNTSCHLI'S *Staatswörterbuch*, i. 351 sqq.; TRENDELENBURG, *Hist. Beitr.* iii. 399 sqq.

[2] Τὰ *ποιητικὰ καὶ φυλακτικὰ τῆς εὐδαιμονίας καὶ τῶν μορίων αὐτῆς τῇ πολιτικῇ κοινωνίᾳ*—the *ἀρετὴ τελεία, ἀλλ' οὐχ ἁπλῶς ἀλλὰ πρὸς ἕτερον*, of which it is said that it is *οὐ μέρος ἀρετῆς ἀλλ' ὅλη ἀρετὴ, οὐδ' ἡ ἐναντία ἀδικία μέρος κακίας ἀλλ' ὅλη κακία . . . ἡ μὲν τῆς ὅλης ἀρετῆς οὖσα χρῆσις πρὸς ἄλλον, ἡ δὲ τῆς κακιας* (*Eth.* v. 3, 1129, b, 17, 25 sqq. 1130, a, 8, c. 5, 1130, b, 18).

[3] For 'the mean,' as in the case of every other virtue, is here the highest criterion; cf. *Eth.* v. 6 *init.*: *ἐπεὶ δ' ὅ τ' ἄδικος ἄνισος καὶ τὸ ἄδικον ἄνισον, δῆλον ὅτι καὶ μέσον τί ἐστι τοῦ ἀνίσου· τοῦτο δ' ἐστὶ τὸ ἴσον . . . εἰ οὖν τὸ ἄδικον ἄνισον, τὸ δίκαιον ἴσον.* c. 9 *init.*

[4] As the distinguishing mark of *ἀδικία* in this narrower sense, *πλεονεκτεῖν* is mentioned (c. 4) *περὶ τιμὴν ἢ χρήματα ἢ σωτηρίαν, ἢ εἴ τινι ἔχοιμεν ἑνὶ ὀνόματι περιλαβεῖν ταῦτα πάντα, καὶ δι' ἡδονὴν τὴν ἀπὸ τοῦ κέρδους*; it consists (c. 10, 1134, a, 33) in *τὸ πλέον αὑτῷ νέμειν τῶν ἁπλῶς ἀγαθῶν. ἔλαττον δὲ τῶν ἁπλῶς κακῶν.* Of justice, on the other hand, it is said, c. 9, 1134, a, 1: *καὶ ἡ μὲν δικαιοσύνη ἐστὶ καθ' ἣν ὁ δίκαιος λέγεται πρακτικὸς κατὰ προαίρεσιν τοῦ δικαίου, καὶ διανεμητικὸς καὶ αὑτῷ πρὸς ἄλλον καὶ ἑτέρῳ πρὸς ἕτερον, οὐχ οὕτως ὥστε τοῦ μὲν αἱρετοῦ πλέον αὑτῷ ἔλαττον δὲ τῷ πλησίον, τοῦ βλαβεροῦ δ' ἀνάπαλιν, ἀλλὰ τοῦ ἴσου τοῦ κατ' ἀναλογίαν, ὁμοίως δὲ καὶ ἄλλῳ πρὸς ἄλλον.* It is (*Rhet.* i. 9, 1366, b, 9) *ἀρετὴ*

But this proportion will be different according as we are dealing with the distribution of civil advantages and the common property, which is the function of distributive justice, or with the removal and prevention of wrongs, which is the function of corrective justice.[1] In both cases the distribution of goods according to the law of ~~quality~~ EQUALITY must be the aim.[2] But this law demands in the former case that each should receive, not an equal amount, but an amount proportionate to his deserts. The distribution, therefore, is here made in a geometrical proportion: as the merits of A are to those of B, so is the honour or advantage which A receives to that which B receives.[3] In the other case, which relates to the correction of inequalities produced by wrong, and to contracts, there is no question of the merits of the individual. Everyone who has done wrong must suffer loss in proportion to the unjust profit which he has appropriated; there is subtracted from his gains an amount equivalent to the loss of the man who has suffered the wrong.[4] In like manner, in buying and

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δι' ἣν τὰ αὑτῶν ἕκαστοι ἔχουσιν. Right and justice, therefore, find a place only among beings who, like man, may possess too much or too little—not among those who, like the gods, are confined to no limit in this respect, or who, like the incurably bad, are incompetent to possess anything at all; *Eth.* v. 13, 1137, a, 26.

[1] We should speak rather of public and private right.

[2] *Δίκαιον* in this sense = *ἴσον*, *ἄδικον* = *ἄνισον*: in the wider sense, on the other hand, the former = *νόμιμον*, the latter = *παράνομον* (v. 5; cf. TRENDELENBURG, *Hist. Beitr.* ii. 357 sqq.; BRANDIS, p. 1421 sq.; RASSOW, *Forsch. üb. d. nikom. Eth.* 17, 93).

[3] This is referred to *Polit.* iii. 9, 1280, a, 16. Conversely of public burdens, each would have to take his share according to his capacity for discharging them. Aristotle, however, does not touch upon this point, although he must have had it in view, *Eth.* v. 7, 1131, b, 20, where he speaks of the *ἔλαττον* and *μεῖζον κακόν*.

[4] By *κέρδος* (advantage or gain) and *ζημία* (disadvantage or loss) Aristotle means in this connection, as he remarks, *Eth.* v

selling, renting, letting, &c., it is a question merely of the value of the article. Here, therefore, the rule is that of arithmetical equality: from him who has too much an amount is taken which will render both sides equal.[1] In matters of exchange this equality consists in equality of value.[2] The universal measure of value is

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7, 1132, a, 10, not merely what is commonly understood by them. As he comprehends under corrective justice not only penal but also civil law, as well as the law of contract, he has greatly to extend the customary signification of the words in order to include these different conceptions under a common form of expression. Accordingly he classes every injustice which anyone commits as κέρδος, every injustice which anyone suffers as ζημία.

[1] *Ibid.* c. 5–7, especially c. 5, 1130, b, 30: τῆς δὲ κατὰ μέρος δικαιοσύνης καὶ τοῦ κατ' αὐτὴν δικαίου ἓν μέν ἐστιν εἶδος τὸ ἐν ταῖς διανομαῖς τιμῆς ἢ χρημάτων ἢ τῶν ἄλλων ὅσα μεριστὰ τοῖς κοινωνοῦσι τῆς πολιτείας, . . . ἓν δὲ τὸ ἐν τοῖς συναλλάγμασι διορθωτικόν. τούτου δὲ μέρη δύο· τῶν γὰρ συναλλαγμάτων τὰ μὲν ἑκούσιά ἐστι τὰ δ' ἀκούσια, ἑκούσια μὲν τὰ τοιάδε οἷον πρᾶσις, ὠνὴ, δανεισμὸς, ἐγγύη, χρῆσις, παρακαταθήκη, μίσθωσις· ἑκούσια δὲ λέγεται, ὅτι ἡ ἀρχὴ τῶν συναλλαγμάτων τούτων ἑκούσιος. τῶν δ' ἀκουσίων τὰ μὲν λαθραῖα, οἷον κλοπὴ, μοιχεία, φαρμακεία, προαγωγεία, δουλαπατία, δολοφονία, ψευδομαρτυρία, τὰ δὲ βίαια, οἷον αἰκία, δεσμὸς, θάνατος, ἁρπαγὴ, πήρωσις, κακηγορία, προπηλακισμός. c. 6, 1131, b, 27: τὸ μὲν γὰρ διανεμητικὸν δίκαιον τῶν κοινῶν ἀεὶ κατὰ τὴν ἀναλογίαν ἐστὶ τὴν εἰρημένην· καὶ γὰρ ἀπὸ χρημάτων κοινῶν ἐὰν γίγνηται ἡ διανομὴ, ἔσται κατὰ τὸν λόγον τὸν αὐτὸν ὅνπερ ἔχουσι πρὸς ἄλληλα τὰ εἰσενεχθέντα· καὶ τὸ ἄδικον τὸ ἀντικείμενον τῷ δικαίῳ τούτῳ παρὰ τὸ ἀνάλογόν ἐστιν. τὸ δ' ἐν τοῖς συναλλάγμασι δίκαιον ἐστὶ μὲν ἴσον τι, καὶ τὸ ἄδικον ἄνισον, ἀλλ' οὐ κατὰ τὴν ἀναλογίαν ἐκείνην ἀλλὰ κατὰ τὴν ἀριθμητικήν. οὐθὲν γὰρ διαφέρει, εἰ ἐπιεικὴς φαῦλον ἀπεστέρησεν ἢ φαῦλος ἐπιεικῆ . . . ἀλλὰ πρὸς τοῦ βλάβους τὴν διαφορὰν μόνον βλέπει ὁ νόμος &c. PLATO (*Gorg.* 508, A) had opposed ἰσότης γεωμετρικὴ to πλεονεξία.

[2] After discussing, in the above passage, both distributive and corrective justice, Aristotle comes (c. 8) to the view that justice consists in retribution, τὸ ἀντιπεπονθὸς (on which see *Ph. d. Gr.* i. 360, 2). This he rejects as a valid definition of justice in general, since it is applicable neither to distributive nor even, strictly speaking, to punitive justice. Only κοινωνίαι ἀλλακτικαὶ rest upon τὸ ἀντιπεπονθὸς, which, however, is here, not κατ' ἰσότητα, but κατ' ἀναλογίαν: τῷ ἀντιποιεῖν γὰρ ἀνάλογον συμμένει ἡ πόλις (1132, b, 31 sqq.): it is not the same, but different, though equivalent things THAT are exchanged for one another, the norm for each exchange being con-

demand, which is the source of all exchange; and the symbol which represents demand is money.[1] Now

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tained in the formula: as are the goods of the one to those of the other, so must that which the former obtains be to that which the latter obtains. Cf. ix. 1 *init.* It is thus obvious that the previous assertion, that corrective justice proceeds according to arithmetical proportion, is inapplicable to this whole class of transactions. But it does not even apply to penal justice. Even here the proportion is geometrical: as A's act is to B's, so is the treatment which A receives to that which B receives. Only indemnification for injury is determined according to arithmetical proportion, and even here it is merely an analogy, as it is only an equivalent that is granted (it is an obvious defect in Aristotle's theory that it makes no distinction between indemnification and punishment, and here treats punishment, which certainly has other aims as well, merely as a loss inflicted upon the transgressor for the purpose of rectifying his unjust gain). When, however, TRENDELENBURG (*ibid.* 405 sqq.) distinguishes the justice in payment and repayment, upon the basis of which contracts are concluded, from corrective justice, and assigns it to distributive, so that the latter embraces the mutual justice of exchange as well as the distributive justice of the state, while corrective justice is confined to the action of the judge, either in inflicting penalties or in deciding cases of disputed ownership, he cannot find much support for this view. From the passages quoted in the preceding note, it is obvious that by distributive justice, Aristotle means that which has to do with the distribution of *κοινὰ*, whether these are honour or other advantages; by corrective justice, on the other hand, so far as it relates to *ἑκούσια συναλλάγματα*, in the first instance, fair dealing in commercial life, and not the legal justice of litigation, as the expression *ἑκούσια συναλλάγματα* indicates, since it is a name given to them (c. 5) because they rest upon voluntary contract. Even in these there are redress and correction: the loss which, *e.g.*, the seller suffers on the deliverance of his goods is compensated by the payment for the same, so that neither party loses or gains (c. 7, 1332, a, 18), and only when no agreement can be arrived at is the judge called in to undertake the settlement. They belong, therefore, not to *διανεμητικὸν*, but to *διορθωτικὸν δίκαιον*. On some other defects in Aristotle's theory of justice, among which the chief is his failure clearly to grasp the general conception of right, and to deduce a scientific scheme of natural rights, see HILDENBRAND, *ibid.* p. 293 sqq.

[1] *Ibid.* 1133, a, 19: *πάντα συμβλητὰ δεῖ πως εἶναι, ὧν ἐστὶν ἀλλαγή· ἐφ' ὃ τὸ νόμισμ' ἐλήλυθε καὶ γίνεταί πως μέσον· πάντα γὰρ μετρεῖ . . . δεῖ ἄρα ἑνί τινι πάντα μετρεῖσθαι, ὥσπερ ἐλέχθη πρότερον. τοῦτο δ' ἐστὶ τῇ μὲν ἀληθείᾳ ἡ χρεία, ἣ πάντα συνέχει . . . οἷον δ'*

justice consists in right dealing with reference to these relations: injustice in the opposite. Justice requires that a man should not assign to himself greater profit or less loss, to the other party greater loss or less profit, than rightfully belongs to each: injustice consists in doing so.[1] A just or an unjust man, again, may be defined as one whose will identifies itself with one or the other mode of action. These two, injustice in the act and in the agent, do not absolutely coincide. A man may do injustice without acting unjustly,[2] and one may act unjustly without therefore being unjust;[3] and accordingly Aristotle makes a distinction between hurt, wrong, and injustice.[4]

ὑπάλλαγμα τῆς χρείας τὸ νόμισμα γέγονε κατὰ συνθήκην, whence the name νόμισμα, from νόμος. Cf. b, 10 sqq. ix. 1,1164, a, 1. See the further treatment of money, *Polit.* i. 9, 1257, a, 31 sqq.

[1] See p. 170, n. 4, *supra*, and *ibid.* c. 9, 1134, a, 6. As justice thus consists in respect for the rights of others, it is called an ἀλλότριον ἀγαθὸν, c. 3, 1130, a, 3, c. 10, 1134, b, 2.

[2] *Eth.* v. 10, 1135, a, 15: ὄντων δὲ τῶν δικαίων καὶ ἀδίκων τῶν εἰρημένων, ἀδικεῖ μὲν καὶ δικαιοπραγεῖ, ὅταν ἑκών τις αὐτὰ πράττῃ· ὅταν δ' ἄκων, οὔτ' ἀδικεῖ οὔτε δικαιοπραγεῖ ἀλλ' ἢ κατὰ συμβεβηκός . . . ἀδίκημα δὲ καὶ δικαιοπράγημα ὥρισται τῷ ἑκουσίῳ καὶ ἀκουσίῳ ὥστ' ἔσται τι ἄδικον μὲν ἀδίκημα δ' οὔπω ἐὰν μὴ τὸ ἑκούσιον προσῇ.

[3] C. 9 (see p. 170, n. 4, *supra*), the δίκαιος had been defined as πρακτικὸς κατὰ προαίρεσιν τοῦ δικαίου: c. 10 *init.* the question is asked: ἐπεὶ δ' ἔστιν ἀδικοῦντα μήπω ἄδικον εἶναι, ὁ ποῖα ἀδικήματα ἀδικῶν ἤδη ἄδικός ἐστιν ἑκάστην ἀδικίαν, οἷον κλέπτης ἢ μοιχὸς ἢ λῃστής; the reply is, that if one, *e.g.*, commits adultery from passion, not διὰ προαιρέσεως ἀρχὴν, we must say: ἀδικεῖ μὲν οὖν, ἄδικος δ' οὐκ ἔστιν, οἷον οὐδὲ κλέπτης, ἔκλεψε δὲ, οὐδὲ μοιχὸς, ἐμοίχευσε δέ. Cf. following note, and p. 116, n. 3.

[4] *Ibid.* 1135, b, 11, all actions are divided into voluntary and involuntary, and the former again into intentional and unintentional (see p. 116 sqq. *supra*): τριῶν δὴ οὐσῶν βλαβῶν τῶν ἐν ταῖς κοινωνίαις [in a passage which Aristotle has here, perhaps, in view, *Laws*, ix. 861, E, PLATO had distinguished βλάβη from ἀδίκημα, cf. *Ph. d. Gr.* i. 719, 3 *fin.*] τὰ μὲν μετ' ἀγνοίας ἁμαρτήματά ἐστιν [or more accurately, l. 16, either ἀτυχήματα or ἁμαρτήματα, ἁμαρτάνει μὲν γὰρ ὅταν ἡ ἀρχὴ ἐν αὐτῷ ᾖ τῆς αἰτίας,

In discussing the nature of justice we must further take account of the difference between complete and incomplete natural and legal right. Rights in the fullest sense exist only between those who are free and equal;[1] hence the distinction between political and paternal, domestic or proprietary right.[2] Political right, again, is divided into natural and legal right; the former of which is binding upon all men in like manner, while the latter rests on arbitrary statute, or refers to particular cases and relations;[3] for however dissimilar

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ἀτυχεῖ δ' ὅταν ἔξωθεν] . . . ὅταν δὲ εἰδὼς μὲν, μὴ προβουλεύσας δὲ, ἀδίκημα [wrong done in passion: *e.g.* anger] . . . ὅταν δ' ἐκ προαιρέσεως, ἄδικος καὶ μοχθηρός . . . ὁμοίως δὲ καὶ δίκαιος, ὅταν προελόμενος δικαιοπραγῇ· δικαιοπραγεῖ δὲ, ἂν μόνον ἑκὼν πράττῃ. But even involuntariness can only excuse ὅσα μὴ μόνον ἀγνοοῦντες ἀλλὰ καὶ δι' ἄγνοιαν ἁμαρτάνουσι, not wrong committed in thoughtlessness which is caused by culpable passion.

[1] C. 10, 1134, a, 25: τὸ ζητούμενόν ἐστι καὶ τὸ ἁπλῶς δίκαιον καὶ τὸ πολιτικὸν δίκαιον. τοῦτο δέ ἐστιν ἐπὶ κοινωνῶν βίου πρὸς τὸ εἶναι αὐτάρκειαν, ἐλευθέρων καὶ ἴσων ἢ κατ' ἀναλογίαν ἢ κατ' ἀριθμόν. Where these conditions are absent, we have not τὸ πολιτικὸν δίκαιον, ἀλλὰ τὶ δίκαιον [a particular kind of justice, as distinguished from τὸ ἁπλῶς δίκαιον] καὶ καθ' ὁμοιότητα. The former (b, 13) is always κατὰ νόμον καὶ ἐν οἷς ἐπεφύκει εἶναι νόμος· οὗτοι δ' ἦσαν ἐν οἷς ὑπαρχει ἰσότης τοῦ ἄρχειν καὶ ἄρχεσθαι.

[2] *Ibid.* 1134, b, 8: τὸ δὲ δεσποτικὸν δίκαιον καὶ τὸ πατρικὸν οὐ ταὐτὸν τούτοις ἀλλ' ὅμοιον· οὐ γὰρ ἔστιν ἀδικία πρὸς τὰ αὑτοῦ ἁπλῶς· τὸ δὲ κτῆμα καὶ τὸ τέκνον, ἕως ἂν ᾖ πηλίκον καὶ μὴ χωρισθῇ, ὥσπερ μέρος αὐτοῦ . . . διὸ μᾶλλον πρὸς γυναῖκά ἐστι δίκαιον ἢ πρὸς τέκνα καὶ κτήματα· τοῦτο γάρ ἐστι τὸ οἰκονομικὸν δίκαιον· ἕτερον δὲ καὶ τοῦτο τοῦ πολιτικοῦ.

[3] *Ibid.* 1134, b, 18: τοῦ δὲ πολιτικοῦ δικαίου τὸ μὲν φυσικόν ἐστι τὸ δὲ νομικὸν, φυσικὸν μὲν τὸ πανταχοῦ τὴν αὐτὴν ἔχον δύναμιν, καὶ οὐ τῷ δοκεῖν ἢ μὴ, νομικὸν δὲ ὃ ἐξ ἀρχῆς μὲν οὐθὲν διαφέρει οὕτως ἢ ἄλλως, ὅταν δὲ θῶνται διαφέρει . . . ἔτι ὅσα ἐπὶ τῶν καθέκαστα νομοθετοῦσιν. Cf. c. 12, 1136, b, 33. Natural right is universal unwritten law [νόμος κοινὸς ἄγραφος]; positive right [νόμος ἴδιος], on the other hand, is described as written law (*Rhet.* i. 10, 1368, b, 7; cf. c. 14, 1375, a, 16, c. 15, 1375, a, 27, 1376, b, 23; *Eth.* viii. 15, 1162, b, 21): but even here there is a distinction between the written and the unwritten (or that part which belongs to custom and habit), *Rhet.* i. 13, 1373, b, 4; cf. *Eth.* x. 10, 1180, a, 35.

and changeable human laws and institutions may be, we cannot deny that there is a natural right, nor is the existence of a natural standard disproved by the possibility of divergence from it.[1] Indeed, such natural right is the only means of supplementing the defects which, seeing that it is a mere general rule and cannot by its very nature take account of exceptions, attach even to the best law.[2] When such an exception occurs it is necessary to sacrifice legal in order to save natural right. This rectification of positive by natural right constitutes Equity.[3] Several other questions, which Aristotle takes occasion to discuss in the course of his researches into the nature of justice,[4] we may here pass over, especially as he arrives at no definite conclusions with regard to them.

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[1] *Eth.* v. 10, 1134, b, 24 sqq.; cf. *Rhet.* i. 13, 1373, b, 6 sqq., where Aristotle appeals for the *φύσει κοινὸν δίκαιον* to well-known verses in Sophocles and Empedocles, and to the universal agreement of men.

[2] Similarly PLATO, *Ph. d. Gr.* i. 763, 1.

[3] *Eth.* v. 14, especially 1137, b. 11: *τὸ ἐπιεικὲς δίκαιον μέν ἐστιν, οὐ τὸ κατὰ νόμον δὲ, ἀλλ' ἐπανόρθωμα νομίμου δικαίου.* And after proving the above, l. 24: *διὸ δίκαιον μέν ἐστι καὶ βέλτιον τοῦ τινὸς δικαίου* [on which see p. 175, n. 1, *supra*], *οὐ τοῦ ἁπλῶς δὲ* [which here as *Polit.* iii. 6, 1279, a, 18, and *Eth.* v. 10, 1134, a, 25 = *φυσικὸν δίκαιον*] *ἀλλὰ τοῦ διὰ τὸ ἁπλῶς* [for which *παρὰ τὸ ἁπλ.* might be conjectured: the words, however, may be explained by supplying after *διὰ τὸ ἁπλῶς*, not *δίκαιον*, but *ὁρίσασθαι*, or a similar word] *ἁμαρτήματος. καὶ ἔστιν αὕτη ἡ φύσις ἡ τοῦ ἐπιεικοῦς, ἐπανόρθωμα νόμου ῃ ἐλλείπει διὰ τὸ καθόλου.* The *ἐπιεικὴς* is therefore (l. 35) *ὁ τῶν τοιούτων προαιρετικὸς καὶ πρακτικὸς, καὶ ὁ μὴ ἀκριβοδίκαιος* &c., and *ἐπιείκεια* is *δικαιοσύνη τις καὶ οὐχ ἑτέρα τις ἕξις.*

[4] Whether it is possible voluntarily to suffer injury and to do oneself an injury, and whether in an unequal distribution the distributor or the receiver commits the wrong. Aristotle deals with these questions, *Eth.* v. c. 11, 12 and 15. He is prevented from finding any satisfactory solution of them, partly by the limitation of injustice to *πλεονεξία*, partly by the failure which is connected with it clearly to distinguish between alienable rights, of which it is true *volenti non fit injuria*, and inalienable, and similarly between civil and penal wrongs. Doubts have been entertained as to the genuineness of one part of these discussions. Chap. 15 is connected with the discussion of justice in

The discussion of the principal virtues serves to confirm the truth of the general definition of virtue previously given. In all of them the question is one of the preservation of the proper mean between two extremes of error. But how are we to discover the proper mean? Neither in the previous general discussion nor in his account of the individual virtues has Aristotle provided us with any reliable criterion of judgment upon this head. In the former, he refers us to insight as the guide to the discovery of the right;[1] in the latter, it is the opposition between two vicious and one-sided extremes that reveals the proper mean. But when we ask what kind of conduct is vicious there

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a manner which is certainly not Aristotle's. SPENGEL (*Abh. d. Bair. Akad.* philos.-philol. Kl. iii. 470) proposes therefore to transpose c. 10 and c. 14, but this does not get over the difficulty, as c. 13 would still disturb the connection between c. 12 and 15. FISCHER (*De Eth. Nicom. &c.* p. 13 sqq.) and FRITZSCHE (*Ethica Eudemi*, 117, 120 sqq.) regard c. 15 as a fragment from the fourth book of the *Eudemian Ethics*. BRANDIS, p. 1438 sq., leaves the choice open between these and other possible explanations (*e.g.* that it is a preliminary note to a larger discussion). The difficulties seem to disappear if we place c. 15, with the exception of the last sentence, between c. 12 and 13. It is not true that the question which it discusses has already been settled: in c. 11 it was asked whether what one suffers voluntarily, here whether what one inflicts on oneself, is a wrong. This investigation is expressly said to be still in prospect at the beginning of c. 12, and while it is certainly not more, it is also not less satisfactory than the kindred investigations, c. 11 and 12. TRENDELENBURG declares himself, *ibid.* 423, satisfied with this transposition, in support of which he appeals to *M. Mor.* i. 34, 1196, a, 28, compared with *Eth. N.* v. 15, 1138, b, 8. On the other hand, RAMSAUER has not a word in allusion to the difficulty of the position of c. 15. In the text of c. 15 itself, however, the order is certainly defective; cf. RAMSAUER, *in loco*, RASSOW, *Forsch. über die nikom. Eth.* 42, 77, 96

[1] See p. 163, n. 2, *supra.*

is none to enlighten us but 'the man of insight,' no ultimate criterion but the notion which he may have formed of the proper mean. All moral judgment, and with it all moral ~~insight~~ virtue, is thus conditioned by 'Insight.' If, then, we would understand the true nature of moral virtue we must next face the question of the nature of Insight, and accordingly Aristotle devotes the sixth book of the *Ethics* to its discussion, illustrating it by comparison with kindred qualities, and explaining its practical import.[1] To this end he first distinguishes, as we have already seen, a two-fold activity of reason, the theoretic and the practical: that which deals with necessary truth, and that which deals with what is matter of choice.[1] Inquiring further how reason, knowledge, wisdom, insight and art[2] are related to one another, he answers that knowledge deals with necessary truth, which is perceived by an indirect process of

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[1] It is usual to assign a more independent position to the section upon the dianoëtic virtues. The *Ethics* is thought to be a general account of all the virtues which are partly moral and partly intellectual; the former are treated of B. ii.–v., the latter B. vi. But while Eudemus (according to *Eth. Eud.* ii. 1, 1220, a, 4–15) may have treated his subject in this way, Aristotle's intention seems to have been different. Ethics, according to Aristotle, is merely a part of Politics (see p. 135 sq.) from which Eudemus (i. 8, 1218, b, 13) is careful to distinguish it as a separate science. Its aim is not (see p. 181, n. 3, *supra*) γνῶσις, but πρᾶξις (*Eth. Eud.* i. 1, 1214, a, 10, represents it as 'not only knowledge, but also action'), and accordingly it requires experience and character to understand it (*Eth. N.* i. 1095, a, 2 sqq., see p. 161, n. 2, 3, *supra*). It would be inconsistent with this practical aim (an objection which, according to *M. Mor.* i. 35, 1197, b, 27, was already urged by the older Peripatetics, and which is there inadequately met), if the *Ethics* were to deal with intellectual activity for its own sake, and without relation to human action in the sense in which vi. 7, 1141, a, 28 declares that Politics has nothing to do with it. The treatment, moreover, in the sixth book, as it stands, if it professes to give a complete account of dianoëtic virtue, is very unsatisfactory. The highest modes of intellectual activity are precisely those which are disposed of most briefly. This, on the other hand, becomes perfectly intelligible if we suppose the true aim to be the investigation of φρόνησις, the other dianoëtic virtues being only mentioned here in order to mark off the province of φρόνησις from theirs and clearly to exhibit its peculiarities by the antithesis. Aristotle has to speak of φρόνησις, because, as he himself says, c. 1 (p. 163, 2, *supra*), he has defined moral virtue as conduct according to ὀρθὸς λόγος, or as the φρόνιμος would define it, and because the discussion forms a necessary part of a complete account of moral virtue. Cf. on

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this head also vi. 13 (p. 166, n. 1, *supra*), x. 8, 1178, a, 16: *συνέζευκται δὲ καὶ ἡ φρόνησις τῇ τοῦ ἤθους ἀρετῇ, καὶ αὕτη τῇ φρονήσει, εἴπερ αἱ μὲν τῆς φρονήσεως ἀρχαὶ κατὰ τὰς ἠθικάς εἰσιν ἀρετὰς, τὸ δ' ὀρθὸν τῶν ἠθικῶν κατὰ τὴν φρόνησιν.*

[1] See p. 113, n. 1, *supra*.

[2] *Eth.* vi. 3 *init.*: *ἔστω δὴ οἷς ἀληθεύει ἡ ψυχὴ τῷ καταφάναι ἢ ἀποφάναι πέντε τὸν ἀριθμόν· ταῦτα δ' ἐστὶ τέχνη, ἐπιστήμη, φρόνησις* [which we have to translate by 'insight' for lack of a better word], *σοφία, νοῦς, ὑπολήψει γὰρ καὶ δόξῃ ἐνδέχεται διαψεύδεσθαι.* Whether Aristotle intends to treat all five or only some of those virtues is, on our view of the aim of this discussion, not very important. At the same time we cannot agree with PRANTL (*Ueber die dianoët. Tug. d. nikom. Eth.* Münch. 1852) in regarding *σοφία* and *φρόνησις* as the only dianoëtic virtues: the former, that of the *λόγον ἔχον*, so far as it has for its object *τὸ μὴ ἐνδεχόμενον ἄλλως ἔχειν*; the latter with the qualities which are subordinate to it (*εὐβουλία, σύνεσις, γνώμη, δεινότης*), in so far as it refers to *τὸ ἐνδεχόμενον ἄλλως ἔχειν*; of *νοῦς*, on the other hand, he says that as immediate it cannot be regarded as a virtue, of *ἐπιστήμη* and *τέχνη* that they are not virtues, but that there is an *ἀρετὴ ἐπιστήμης, σοφία*, and an *ἀρετὴ τέχνης*, likewise in the last instance *σοφία*. Aristotle certainly speaks of *σοφία*, c. 7, 1141, a, 12, as *ἀρετὴ τέχνης*, but only in the popular sense; as *σοφία* has to do only with the necessary, it cannot in this sense be *ἀρετὴ τέχνης*, whose sphere is *τὸ ἐνδεχόμενον ἄλλως ἔχειν.* But, apart from this inaccuracy, Prantl's view is untenable, for in the first place Aristotle expressly says, c. 2 *init.*, that the dianoëtic virtues are the subject of the discussion that follows, and nowhere hints that there is any difference in this respect among the five which he enumerates c. 3, and in the second place Aristotle's definition of virtue applies to all five. If every praiseworthy quality is a virtue (*Eth.* i. 13 *fin.*: *τῶν δὲ ἕξεων τὰς ἐπαινετὰς ἀρετὰς λέγομεν*) *ἐπιστήμη* and *τέχνη* are undoubtedly *ἕξεις ἐπαινεταί* (as example of *ἕξις, ἐπιστήμη* is the one which is given in *Categ.* c. 8, 8, a, 29, 11, a, 24); if, on the other hand, we accept the definition of virtue elsewhere (*Top.* v. 3, 131, b, 1), *ὃ τὸν ἔχοντα ποιεῖ σπουδαῖον*, this also is applicable to both. The same is true of *νοῦς* when conceived of, not as a special part of the soul, but as a special quality of that part, as it must be when classed along with *ἐπιστήμη*,

thought—in other words, by inference;[1] that necessary truth is also the object of reason (*νοῦς*) in that narrower sense in which it means the power of grasping in an act of immediate cognition those highest and most universal truths which are the presuppositions of all knowledge;[2]

&c.; c. 12 *init.*, moreover, it is expressly described as a *ἕξις*, but if it is a *ἕξις* it must be a *ἕξις ἐπαινετή*: in other words, an *ἀρετή*.

[1] *Ibid.* c. 3; cf. p. 243, *supra.*

[2] *Ibid.* c. 6, and frequently, *v.* p. 244, sqq. From reason in this sense *νοῦς πρακτικὸς* is distinguished. The difference, according to *De An.* iii. 10, *Eth.* vi. 2, 12 (p. 113, n. 2, cf. 118, n. 1, *supra*), is that the object of the practical reason is action, and therefore *τὸ ἐνδεχ. ἄλλως ἔχειν*, whereas the theoretic reason is concerned with all *ὅσων αἱ ἀρχαὶ μὴ ἐνδέχονται ἄλλως ἔχειν.* In his further treatment of the practical reason Aristotle is hardly consistent. In the passages cited, p. 113, n. 2, its function is described as *βουλεύεσθαι* or *λογίζεσθαι*, while it is itself called *τὸ λογιστικόν*; it is of less import (according to p. 106, n. 2, *supra*) that for *νοῦς πρακτικὸς* stand also *διάνοια πρακτική, πρακτικὸν καὶ διανοητικόν.* On the other hand we read, *Eth.* vi. 12, 1143, a, 35: *καὶ ὁ νοῦς τῶν ἐσχάτων ἐπ᾽ ἀμφότερα· καὶ γὰρ τῶν πρώτων ὅρων καὶ τῶν ἐσχάτων νοῦς ἐστι καὶ οὐ λόγος, καὶ ὃ μὲν κατὰ τὰς ἀποδείξεις τῶν ἀκινήτων ὅρων καὶ πρώτων, ὁ δ᾽ ἐν ταῖς πρακτικαῖς* [sc. *ἐπιστήμαις*, not *ἀποδείξεσι*, as the species *πρακτικαὶ ἀποδείξεις* cannot stand as the antithesis to the genus *ἀποδείξις*; moreover, the former phrase involves a self-contradiction, *ἀπόδειξις* according to p. 243 sq. being a conclusion from necessary premises, whereas deliberation has to do with *τὸ ἐνδεχ. ἄλλως ἔχειν*) *τοῦ ἐσχάτου καὶ ἐνδεχομένου καὶ τῆς ἑτέρας προτάσεως. ἀρχαὶ γὰρ τοῦ οὗ ἕνεκα αὗται· ἐκ γὰρ τῶν καθ᾽ ἕκαστα τὸ καθόλου* [the last clause, *ἐκ γὰρ*, &c., has hitherto baffled the commentators, and ought perhaps to be struck out]. *τούτων οὖν ἔχειν δεῖ αἴσθησιν, αὕτη δ᾽ ἐστὶ νοῦς.* According to this passage also there is, besides the reason which knows the unchangeable principles of demonstrations, a second whose object is *τὸ ἔσχατον, τὸ ἐνδεχόμενον, ἡ ἑτέρα πρότασις*, and which, therefore, is described as an *αἴσθησις* of these (*τούτων* can only refer to these *ἀρχαὶ τοῦ οὗ ἕνεκα*). By *ἔσχατον* can only be meant the same as iii. 5, 1112, b, 23 (cf. vi. 9, 1142, a, 24 and p. 118, n. 3, *supra*) where it is said, *τὸ ἔσχατον ἐν τῇ ἀναλύσει πρῶτον εἶναι ἐν τῇ γενέσει*, the primary condition (*πρῶτον αἴτιον*, 1112, b, 19) for the attainment of a certain end, with the discovery of which deliberation ceases and action begins, as set forth, iii. 5, 1112, b, 11 sqq.; *De An.* iii. 10 (see p. 113, n. 2, *supra*). As it lies in our own power to make this condition actual or not, it is described as *ἐνδεχόμενον.* But it does not coincide in mean-

that wisdom consists in the union of reason and knowing, as Walter, *Lehre v. d. prakt. Vern.* 222, assumes, with the ἑτέρα πρότασις, ‘the second premise.’ The latter is the minor premise of the practical syllogism: in the example adduced, *Eth.* vi. 5 (see p. 110, n. 1, *supra*), ‘παντὸς γλυκέος γεύεσθαι δεῖ, τουτὶ δὲ γλυκὺ,’ &c., it is the clause ‘this is sweet’; the ἔσχατον, on the other hand, which leads immediately to action is the conclusion (in the given case: τούτου γεύεσθαι δεῖ), which is called, *De An.* iii. 10 (see p. 113, n. 2, *supra*), *Eth.* vi. 8, 1141, b, 12, ἀρχὴ τῆς πράξεως, πρακτὸν ἀγαθόν; as, then, τὸ πρακτὸν is described as τὸ ἔσχατον, vi. 8, 1141, b, 27, c. 8, 1142, a, 24 also, and only this can be meant by τὸ ἐνδεχ. in the passage before us, the minor premise (‘this is sweet,’ ‘this is shameful’) does not refer to a mere possibility but to an unalterable reality. It is certainly surprising to be told that both of these are not known by a λόγος, but by Nous, seeing that the minor premise of the practical syllogism is matter of perception, not of Nous, while the conclusion, τὸ ἔσχατον, being deduced from the premises, is matter, not of νοῦς, but of λόγος, not of immediate but of mediate knowledge. Nevertheless, although in many cases (as in the above, τουτὶ γλυκὺ) the minor premise of the practical syllogism is a real perception, there are other cases in which it transcends mere perception: as, for instance, when the major premise is ‘we must do what is just,’ the minor ‘this action is just.’ In such cases we can only speak of αἴσθησις in the improper sense described p, 250, n. 1, *supra* (for another example, *v. Eth.* ii. 9, 1109, b, 20), and Aristotle himself remarks (*v.* p. 183, n. 4, *infra*) that what he here calls αἴσθησις it would be better to call φρόνησις. But even the ἔσχατον, i.e. the πρακτὸν, must be object of αἴσθησις, as it is a particular, and all particulars are so (cf. p. 183, *infra*). What is more remarkable is that the passage before us places the function of the practical reason, not in βουλεύεσθαι (on which *v.* p. 182, n, 5, *infra*), but in the cognition of the ἑτέρα πρότασις and the ἔσχατον. It is wholly inadmissible to say, with Walter, *ibid.* 76 sqq., that it is speaking of the theoretic reason and not of the practical at all. It is impossible to understand the words ὁ μὲν κατὰ τὰς ἀποδείξεις, &c., to mean that one and the same Nous knows both. If we examine c. 2 of this book (see p. 113, n. 2, *supra*) where, consistently with other passages, τὰ ἐνδεχ. ἄλλως ἔχειν are expressly assigned to the νοῦς πρακτικὸς as the sphere of its action, while the θεωρητικὸς is confined to the sphere of necessary truth, and if we consider how important a place the latter doctrine has in Aristotle's philosophy (cf. p. 197, n. 4, *supra*; *Anal. Post.* i. 33 *init.*: of the ἐνδεχ. ἄλλως ἔχειν there is neither an ἐπιστήμη nor a νοῦς), we must regard it as more than improbable that what in all other passages is in the distinctest terms denied of this reason is here expressly affirmed of it. Such an explanation is unnecessary: Aristotle says of φρόνησις, ledge in the cognition of the highest and worthiest objects.[1] These three, therefore, constitute the purely theoretic side of reason. They are the processes by which we know the actual and its laws. What they deal with cannot be otherwise than as it is, and therefore cannot be matter of human effort. On the other hand, art and insight[2] deal with human action: in the one case as it concerns production, in the other as it is conduct.[3] Insight alone, therefore, of all the cognitive activities can be our guide in matters of conduct. It is not, however, the only element in the determination of conduct. The ultimate aims of action are determined, according to Aristotle,[4] not by deliberation, but by the character of the will:[5] or, as he would

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the virtue of the practical reason, both that practical deliberation, and that the immediate knowledge of the *ἔσχατον* and *πρακτὸν*, is the sphere of its operation (see p. 18~~2~~3, n. 3, *infra*). He attributes, therefore, to it the knowledge both of the actual, which is the starting-point of deliberation, and of the purpose which is its goal.

[1] C. 7, 1141, a, 16 (after rejecting the common and inaccurate use of the word *σοφία*): *ὥστε δῆλον ὅτι ἡ ἀκριβεστάτη ἂν τῶν ἐπιστημῶν εἴη ἡ σοφία. δεῖ ἄρα τὸν σοφὸν μὴ μόνον τὰ ἐκ τῶν ἀρχῶν εἰδέναι, ἀλλὰ καὶ περὶ τὰς ἀρχὰς ἀληθεύειν. ὥστ' εἴη ἂν ἡ σοφία νοῦς καὶ ἐπιστήμη, ὥσπερ κεφαλὴν ἔχουσα ἐπιστήμη τῶν τιμιωτάτων.* Cf. p. 290, n. 2, *supra.*

[2] It would be preposterous, Aristotle continues, c. 7, 1141, a, 20, to regard *φρόνησις* and *πολιτικὴ* as the highest knowledge; in that case we should have to regard man as the noblest of all beings. The former is concerned with what is best for man: on the other hand *ἡ σοφία ἐστὶ καὶ ἐπιστήμη καὶ νοῦς τῶν τιμιωτάτων τῇ φύσει.* c. 8 *init.*: *ἡ δὲ φρόνησις περὶ τὰ ἀνθρώπινα καὶ περὶ ὧν ἔστι βουλεύσασθαι· τοῦ γὰρ φρονίμου μάλιστα τοῦτ' ἔργον εἶναί φαμεν, τὸ εὖ βουλεύεσθαι, βουλεύεται δ' οὐθεὶς περὶ τῶν ἀδυνάτων ἄλλως ἔχειν, οὐδ' ὅσων μὴ τέλος τί ἐστι καὶ τοῦτο πρακτὸν ἀγαθόν.* See also p. 183, n. 2, *supra.*

[3] See p. 107, n. 2, *supra.*

[4] As was rightly pointed out by WALTER, *Lehre v. d. prakt. Vern.* 44, 78, and HARTENSTEIN in opposition to TRENDELENBURG (*Hist. Beitr.* ii. 378), and the earlier view of the present treatise.

[5] *Eth.* iii. 5, 1112, b, 11: *βουλευόμεθα δὲ οὐ περὶ τῶν τελῶν ἀλλὰ περὶ τῶν πρὸς τὰ τέλη.* So the physician, the orator, the

explain it, while all aim at happiness,[1] it depends upon the moral character of each individual wherein he seeks it. Practical deliberation is the only sphere of the exercise of insight;[2] and since this has to do, not with universal propositions, but with their application to given cases, knowledge of the particular is more indispensable to it than knowledge of the universal.[3] It is this application to practical aims and to particular given cases that distinguishes insight both from science and from theoretic reason.[4] On the other hand, it is

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legislator: *θέμενοι τέλος τι πῶς καὶ διὰ τίνων ἔσται σκοποῦσι.* vi. 13, 1144, a, 8: *τὸ ἔργον ἀποτελεῖται κατὰ τὴν φρόνησιν καὶ τὴν ἠθικὴν ἀρετήν· ἡ μὲν γὰρ ἀρετὴ τὸν σκοπὸν ποιεῖ ὀρθὸν, ἡ δὲ φρόνησις τὰ πρὸς τοῦτον.* L. 20: *τὴν μὲν οὖν προαίρεσιν ὀρθὴν ποιεῖ ἡ ἀρετὴ, τὸ δ' ὅσα ἐκείνης ἕνεκα πέφυκε πράττεσθαι οὐκ ἔστι τῆς ἀρετῆς ἀλλ' ἑτέρας δυνάμεως.* See further, p. 186, n. 5, *infra.*

[1] See p. 139, n. 1, *supra.*

[2] C. 8 *init.*; see p. 118, n. 3, *supra.*

[3] *Eth.* vi. 8, 1141, b, 14 (with reference to the words quoted n. 2 preced. p.): *οὐδ' ἐστὶν ἡ φρόνησις τῶν καθόλου μόνον, ἀλλὰ δεῖ καὶ τὰ καθέκαστα γνωρίζειν· πρακτικὴ γὰρ, ἡ δὲ πρᾶξις περὶ τὰ καθέκαστα.* And accordingly (as is remarked also *Metaph.* i. 881, a, 12 sqq.) experience without knowledge (*i.e.* without apprehension of the universal) is as a rule of greater practical use than knowledge without experience. *ἡ δὲ φρόνησις πρακτική· ὥστε δεῖ ἄμφω ἔχειν ἢ ταύτην* [the apprehension of the particular] *μᾶλλον.* For the same reason young people lack *φρόνησις* (c. 9, 1142, a, 11), being without experience.

[4] *Eth.* vi. 9, 1142, a, 23: *ὅτι δ' ἡ φρόνησις οὐκ ἐπιστήμη, φανερόν· τοῦ γὰρ ἐσχάτου ἐστὶν, ὥσπερ εἴρηται·* [in the passage quoted, p. 182, n. 2, *sup.*, where it was shown to be concerned with the *πρακτὸν ἀγαθόν*; cf. c. 8, 1141, b, 27: *τὸ γὰρ ψήφισμα πρακτὸν ὡς ἔσχατον*] *τὸ γὰρ πρακτὸν τοιοῦτον* [sc. *ἔσχατον*]. *ἀντίκειται μὲν δὴ τῷ νῷ· ὁ μὲν γὰρ νοῦς τῶν ὅρων, ὧν οὐκ ἔστι λόγος, ἡ δὲ τοῦ ἐσχάτου, οὗ οὐκ ἔστιν ἐπιστήμη, ἀλλ' αἴσθησις, οὐχ ἡ τῶν ἰδίων, ἀλλ' οἵᾳ αἰσθανόμεθα ὅτι τὸ ἐν τοῖς μαθηματικοῖς ἔσχατον τρίγωνον· στήσεται γὰρ κἀκεῖ. ἀλλ' αὕτη μᾶλλον αἴσθησις ἢ φρόνησις, ἐκείνης δ' ἄλλο εἶδος.* This passage has been discussed in recent times by TRENDELENBURG (*Hist. Beitr.* ii. 380 sq.), TEICHMÜLLER (*Arist. Forsch.* i. 253–262), and more exhaustively by WALTER (*Lehr. v. d. prakt. Vern.* 361–433). The best view of Aristotle's meaning and the grounds on which it rests may be shortly stated as follows: *Φρόνησις* is here distinguished from *ἐπιστήμη* by marks

seen in both these respects to be a manifestation of practical reason, the essential characteristics of which it

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which are already familiar to us. When it is further opposed to Nous, which is described as concerned with indemonstrable principles, we can obviously understand by Nous in this sense only the theoretic, not that reason which Aristotle calls practical and distinguishes from the former as a different faculty of the soul on no other ground than that it (like *φρόνησις*, according to the passage before us) has to do with the *πρακτὸν*, the *ἐνδεχόμενον*, the *ἔσχατον* (see p. 180, n. 2, *supra*). Finally, it cannot surprise us that the *ἔσχατον*, with which insight is concerned, is said to be the object not of *ἐπιστήμη* but of *αἴσθησις*. For this *ἔσχατον*, which is found in the conclusion of the practical syllogism, is that in the fulfilment of which action consists, and is always therefore a definite and particular result; the *ἔσχατον* is the source of the resolution to undertake this journey, to assist this one who is in need, &c. (cf. p. 180, n. 2). But the particular is not the object of scientific knowledge but of perception; cf. p. 163 sq. While this is so, we have to deal in the conclusion of the practical syllogism (often also, as was shown, p. 180 sq., in its minor premise), not only with the apprehension of an actual fact, but at the same time with its subsumption under a universal concept (as in the conclusion: 'I wish a good teacher—Socrates is a good teacher—Socrates must be my teacher'); accordingly, not with a simple perception but with a perceptive judgment. The *αἴσθησις*, therefore, which is concerned with the *ἔσχατον* of practical deliberation is not *αἴσθησις τῶν ἰδίων*, *i.e.* the apprehension of the sensible qualities of objects which are present to particular senses (as was shown, p. 69 sq. *sup.*, this is always accompanied by particular sensations), but an *αἴσθησις* of another kind. What that kind is is not expressly said, but merely indicated by an example: it is like that which informs us *ὅτι τὸ ἐν τοῖς μαθηματικοῖς ἔσχατον τρίγωνον*, that in the analysis of a figure the last term which resists all analysis is a triangle. (For only so can the words be understood, as is almost universally recognised; Ramsauer's explanation, which takes the general proposition to mean *primam vel simplicissimam omnium figuram esse triangulum*, is contradicted by the circumstance noted by himself that such a proposition is not known by *αἴσθησις*.) In other words, this *αἴσθησις* involves a judgment upon the quality of its object. But such propositions as 'this must be done' differ even from the given instance, 'this is a triangle,' in that they refer to something in the ~~picture~~ and not FUT merely to something present to the senses. They are therefore still further removed from perception in the proper sense than it is. Hence he adds: they are more of the nature of *φρόνησις*; it is more akin to *αἴσθησις*. The passage, therefore, gives good sense, and there is no reason to reject the so perfectly reproduces that we have no difficulty in recognising in it 'the virtue of practical reason'—in other words, practical reason educated to a virtue.[1] Its object is on the one hand the individual and his good, on the other the commonwealth: in the former case it is Insight in the narrower sense, in the latter Politics, which again is further divided into Œconomics, and the sciences of Legislation and Government.[2] In the sure discovery of the proper means to the ends indicated by Insight consists Prudence;[3] in right judgment on the matters with which practical Insight has to deal, Understanding;[4] in so far as a man judges equitably on these

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words from *ὅτι τὸ ἐν τοῖς μαθ.* to the end, in which case we should have to suppose that the actual conclusion of the chapter has been lost.

[1] Aristotle does not, indeed, expressly say so, but he attributes to *νοῦς πρακτικὸς* (see p. 180, n. 2) precisely those activities in which *φρόνησις* expresses itself, viz. *βουλεύεσθαι* and occupation with the *ἐνδεχόμενον*, the *πρακτὸν ἀγαθὸν*, the *ἔσχατον*, and remarks of both that they are concerned with matters of *αἴσθησις*, not of knowledge (p. 183, n. 4, *supra*). These statements are consistent only on the supposition that they refer to one and the same subject, and that insight is merely the right state of the practical reason. PRANTL'S view (*ibid.* p. 15), that it is the virtue of *τὸ δοξαστικὸν*, is refuted even by the passage which he quotes on its behalf, c. 10, 1142, b, 8 sqq., not to speak of c. 3, 1139, b, 15 sqq.

[2] C. 8 sq. 1141, b, 23–1142, a, 10; cf..p. 136.

[3] *Εὐβουλία*, *ibid.* c. 10; cf. p. 118, n. 3, *supra.* According to this account of it, *εὐβουλία* must not be confounded with knowledge into which inquiry and deliberation do not enter as elements, nor with *εὐστοχία* and *ἀγχίνοια*, which discover what is right without much deliberation, nor with *δόξα*, which also is not an inquiry; but it is a definite quality of the understanding (*διάνοια*, see p. 106, n. 2), viz. *ὀρθότης βουλῆς ἡ κατὰ τὸ ὠφέλιμον, καὶ οὗ δεῖ καὶ ὥς καὶ ὅτε.* And we must further here distinguish between *τὸ ἁπλῶς εὖ βεβουλεῦσθαι* and *τὸ πρός τι τέλος εὖ βεβουλεῦσθαι.* Only the former deserves unconditionally to be called *εὐβουλία*, which is therefore defined as *ὀρθότης ἡ κατὰ τὸ συμφέρον πρός τι τέλος, οὗ ἡ φρόνησις ἀληθὴς ὑπόληψίς ἐστιν.*

[4] *Σύνεσις*, *ibid.* c. 11. Its relation to *φρόνησις* is described 1143, a, 6: *περὶ τὰ αὐτὰ μὲν τῇ φρονήσει ἐστὶν, οὐκ ἔστι δὲ ταὐτὸν*

matters towards others, we call him Right-minded.[1] Just, therefore, as all perfection of theoretic reason is included in Wisdom, so all the virtues of the practical reason are traced back to Insight.[2] The natural basis of insight is the intellectual acuteness which enables us to find and apply the proper means to a given end.[3] If this is turned to good ends it becomes a virtue, in the opposite case a vice; so that the root from which spring the insight of the virtuous man and the cunning of the knave is one and the same.[4] The character of our ends, however, depends in the first instance upon our will, and the character of our will upon our virtue; and in that sense insight may be said to be conditioned by virtue.[5]

σύνεσις καὶ φρόνησις· ἡ μὲν γὰρ φρόνησις ἐπιτακτική ἐστιν· τί γὰρ δεῖ πράττειν ἢ μὴ, τὸ τέλος αὐτῆς ἐστίν· ἡ δὲ σύνεσις κριτικὴ μόνον. It consists *ἐν τῷ χρῆσθαι τῇ δόξῃ ἐπὶ τὸ κρίνειν περὶ τούτων περὶ ὧν ἡ φρόνησίς ἐστιν, ἄλλου λέγοντος, καὶ κρίνειν καλῶς.*

[1] *Γνώμη, καθ' ἣν εὐγνώμονας καὶ ἔχειν φαμὲν γνώμην,* is according to c. 11, 1143, a, 19 sqq. *ἡ τοῦ ἐπιεικοῦς κρίσις ὀρθὴ,* similarly *συγγνώμη = γνώμη κριτικὴ τοῦ ἐπιεκοῦς ὀρθή.* All right conduct towards others, however, has to do with equity (c. 12, 1143, a, 31).

[2] Aristotle accordingly concludes the discussion of the dianoëtic virtues with the words: *τί μὲν οὖν ἐστὶν ἡ φρόνησις καὶ ἡ σοφία . . , εἴρηται,* so that he himself appears to regard these as representative of the two chief classes of the dianoëtic virtues. There is this difference, moreover, between them and most of the others (c. 12, 1143, b, 6 sq. c. 9, 1142, a, 11 sqq.) that while *νοῦς, σύνεσις* and *γνώμη* are to a certain extent natural gifts, *σοφία* and *φρόνησις* are not.

[3] *Ibid.* c. 13, 1144, a, 23: *ἔστι δή τις δύναμις ἣν καλοῦσι δεινότητα. αὕτη δ' ἐστὶ τοιαύτη ὥστε τὰ πρὸς τὸν ὑποτεθέντα σκοπὸν συντείνοντα δύνασθαι ταῦτα πράττειν καὶ τυγχάνειν αὐτῶν.*

[4] *Ibid.* l. 26: *ἂν μὲν οὖν ὁ σκοπὸς ᾖ καλὸς, ἐπαινετή ἐστιν, ἂν δὲ φαῦλος, πανουργία.* VII. 11, 1152, a, 11: *διὰ τὸ τὴν δεινότητα διαφέρειν τῆς φρονήσεως τὸν εἰρημένον τρόπον . . . καὶ κατὰ μὲν τὸν λόγον ἐγγὺς εἶναι, διαφέρειν δὲ κατὰ τὴν προαίρεσιν.* See above. Plato had already remarked (*Rep.* vi. 491 E) that the same natural gift which rightly guided produces great virtue, under wrong guidance is the source of great vice.

[5] *Eth.* vi. 13, 1144, a, 8, 20 (see p. 182, n. 5, *sup.*). *Ibid.* l. 28 (after the words quoted n. 3, 4): *ἔστι δ' ἡ φρόνησις οὐχ ἡ δεινότης, ἀλλ' οὐκ ἄνευ τῆς δυνάμεως ταύτης. ἡ*

But, conversely, virtue may also be said to be conditioned by insight;[1] for just as virtue directs the will to good objects, insight teaches it the proper means to employ in the pursuit of them.[2] Moral virtue, therefore, and insight reciprocally condition one another: the former gives the will a bent in the direction of the good, while the latter tells us what actions are good.[3] The circle in which we seem here to be involved is not really resolved by saying[4] that virtue and insight come into existence and grow up together by a gradual process of habituation; that every single virtuous action presupposes insight, every instance of true practical insight virtue;[5] but that if we are in search of the primal germ from which both of these are evolved, we must look for it in education, by which the insight of the older generation produces the virtue of the younger. This solution might suffice if we were dealing merely with the moral development of individuals,

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δ' ἕξις [which here, as p. 153, n. 3, *supra*, indicates a permanent quality] τῷ ὄμματι τούτῳ γίνεται τῆς ψυχῆς [insight is compared to the eye also] οὐκ ἄνευ ἀρετῆς . . . διαστρέφει γὰρ ἡ μοχθηρία καὶ διαψεύδεσθαι ποιεῖ περὶ τὰς πρακτικὰς ἀρχάς. ὥστε φανερὸν ὅτι ἀδύνατον φρόνιμον εἶναι μὴ ὄντα ἀγαθόν. Cf. c. 5, 1140, b, 17: τῷ δὲ διεφθαρμένῳ δι' ἡδονὴν καὶ λύπην εὐθὺς οὐ φαίνεται ἡ ἀρχὴ, οὐδὲ [sc. φαίνεται αὐτῷ] δεῖν τούτου ἕνεκεν καὶ διὰ τοῦθ' αἱρεῖσθαι πάντα καὶ πράττειν. VII. 9, 1151, a, 14 sqq.

[1] *Eth.* vi. 13, 1144, b, 1–32. Cf. preceding note and p. 156, n. 3, *supra*.

[2] See p. 182, n. 5, *supra*. *Eth.* vi. 13, 1145, a, 4: οὐκ ἔσται ἡ προαίρεσις ὀρθὴ ἄνευ φρονήσεως οὐδ' ἄνευ ἀρετῆς· ἡ μὲν γὰρ τὸ τέλος, ἡ δὲ τὰ πρὸς τὸ τέλος ποιεῖ πράττειν.

[3] 1144, b, 30: δῆλον οὖν ἐκ τῶν εἰρημένων ὅτι οὐχ οἷόν τε ἀγαθὸν εἶναι κυρίως ἄνευ φρονήσεως οὐδὲ φρόνιμον ἄνευ τῆς ἠθικῆς ἀρετῆς. X. 8; see p. 178, n. 1 *fin. supra*.

[4] TRENDELENBURG, *Histor. Beitr.* ii. 385 sq.

[5] TRENDELENBURG refers on this point to *M. Mor.* ii. 3, 1200, a, 8; οὔτε γὰρ ἄνευ τῆς φρονήσεως αἱ ἄλλαι ἀρεταὶ γίνονται, οὔθ' ἡ φρόνησις τελεία ἄνευ τῶν ἄλλων ἀρετῶν, ἀλλὰ συνεργοῦσί πως μετ' ἀλλήλων.

and with the question whether in time virtue here precedes insight or *vice versa*. But the chief difficulty lies in the fact that they condition one another absolutely. Virtue consists in preserving the proper mean, which can only be determined by 'the man of insight.'[1] But, if this be so, insight cannot be limited to the mere discovery of means for the attainment of moral ends: the determination of the true ends themselves is impossible without it; while, on the other hand, prudence merits the name of insight only when it is consecrated to the accomplishment of moral ends.

As insight is the limit of moral virtue in one direction, those activities which spring, not from the will, but from natural impulse (without, however, on that account being wholly withdrawn from the control of the will) stand at the other extreme. To this class belong the passions. After the discussion, therefore, of insight, follows a section of the *Ethics* which treats of the right and wrong attitude towards the passions. Aristotle calls the former temperance, the latter intemperance—distinguishing them from the moral qualities of self-control (*σωφροσύνη*) and licentiousness,[2] by pointing out that while in the case of the latter the control or tyranny of the desires rests upon a bent of the will founded on principle, in the case of the former it rests merely upon the strength or weakness of the will. For if all morality centres in the relation of reason to desire, and is concerned with pleasure and pain;[3] if further, there is in this respect always a wrong as opposed to the right, a bad as opposed to the good—still this opposition may be of three different degrees and kinds. If we suppose on the one hand a perfected virtue, free alike from all weakness and vice, and on the other a total absence of conscience, we have in the former case a divine and heroic perfection which hardly exists among men, in the latter a state of brutal insensibility which is equally rare.[1] If the character of the will, without being so completely and immutably good or bad as in the cases just supposed, yet exhibits in fact either of these qualities, we have moral virtue or vice.[2] Finally, if we allow ourselves to be carried away by passion, without actually willing the evil, this is defined as intemperance or effeminacy ; if we resist the seductions of passion, it is temperance or constancy. Temperance and intemperance have to do with the same object as self-control and licentiousness—namely, bodily pain and pleasure. The difference lies in this, that while in the case of the former wrong conduct springs only from passion, in the case of the latter it springs from the character of the will. If in the pursuit of bodily pleasure or in the avoidance of bodily pain, a man transgresses the proper limit from weakness and not from an evil will, in the former case he is intemperate, in the latter effeminate; if he preserves the proper limit, he is temperate or constant.[1] The latter type of man still differs from the man who is virtuous in the proper sense (*σώφρων*), in that he is still struggling with evil desires, from which the other is free.[1] The general question of how and how far it is possible to act from intemperance, and to let our better knowledge be overpowered by desire, has been already discussed.[2]

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[1] Cf. p. 163.

[2] P. 167 n. 6, *supra*.

[3] See p. 156 sq. *supra*.

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[1] *Eth.* vii. 8 *init.* : *τῶν περὶ τὰ ἤθη φευκτῶν τρία ἐστὶν εἴδη, κακία ἀκρασία θηριότης. τὰ δ' ἐναντία τοῖς μὲν δυσὶ δῆλα· τὸ μὲν γὰρ ἀρετὴν τὸ δ' ἐγκράτειαν καλοῦμεν· πρὸς δὲ τὴν θηριότητα μάλιστ' ἂν ἁρμόττοι λέγειν τὴν ὑπὲρ ἡμᾶς ἀρετήν, ἡρωϊκήν τινα καὶ θείαν . . . καὶ γὰρ ὥσπερ οὐδὲ θηρίου ἐστὶ κακία οὐδ' ἀρετή, οὕτως οὐδὲ θεοῦ, ἀλλ' ἡ μὲν τιμιώτερον ἀρετῆς, ἡ δ' ἕτερόν τι γένος κακίας*, &c. Of *θηριότης* Aristotle speaks further c. 6, 1148, b, 19, 1149, a, 20, c. 7, 1149, b, 27 sqq. Among bestial desires he reckons *ἀφροδίσια τοῖς ἄρρεσι*, by which, however, as the context shows, he means only passive not active *παιδεραστία*.

[2] See preceding note and the remarks which follow upon the relation of *σωφροσύνη* and *ἀκολασία* to *ἐγκράτεια* and *ἀκρασία*, besides p. 160 sq.

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[1] *Ibid.* c. 6: ὅτι μὲν οὖν περὶ ἡδονὰς καὶ λύπας εἰσὶν οἵ τ' ἐγκρατεῖς καὶ καρτερικοὶ καὶ οἱ ἀκρατεῖς καὶ μαλακοί, φανερόν. More accurately, these qualities, like σωφροσύνη and ἀκολασία, refer to bodily pain and pleasure; only in an improper sense can we speak of χρημάτων ἀκρατεῖς καὶ κέρδους καὶ τιμῆς καὶ θυμοῦ. τῶν δὲ περὶ τὰς σωματικὰς ἀπολαύσεις, περὶ ἃς λέγομεν τὸν σώφρονα καὶ ἀκόλαστον, ὁ μὴ τῷ προαιρεῖσθαι τῶν ἡδονῶν διώκων τὰς ὑπερβολὰς καὶ τῶν λυπηρῶν φεύγων . . . ἀλλὰ παρὰ προαίρεσιν καὶ τὴν διάνοιαν, ἀκρατὴς λέγεται, οὐ κατὰ πρόσθεσιν, καθάπερ ὀργῆς, ἀλλ' ἁπλῶς μόνον. Μαλακία refers to the same objects. The ἀκρατὴς, therefore, and the ἀκόλαστος, the ἐγκρατὴς and the σώφρων, εἰσὶ μὲν περὶ ταὐτὰ, ἀλλ' οὐχ ὡσαύτως εἰσὶν, ἀλλ' οἱ μὲν προαιροῦνται οἱ δ' οὐ προαιροῦνται. διὸ μᾶλλον ἀκόλαστον ἂν εἴποιμεν, ὅστις μὴ ἐπιθυμῶν ἢ ἠρέμα διώκει τὰς ὑπερβολὰς καὶ φεύγει μετρίας λύπας, ἢ τοῦτον ὅστις διὰ τὸ ἐπιθυμεῖν σφόδρα. C. 8 *init.*: in reference to the said objects, ἔστι μὲν οὕτως ἔχειν ὥστε ἡττᾶσθαι καὶ ὧν οἱ πολλοὶ κρείττους, ἔστι δὲ κρατεῖν καὶ ὧν οἱ πολλοὶ ἥττους· τούτων δ' ὁ μὲν περὶ ἡδονὰς ἀκρατὴς ὁ δ' ἐγκρατής, ὁ δὲ περὶ λύπας μαλακὸς ὁ δὲ καρτερικός . . . ὁ μὲν τὰς ὑπερβολὰς διώκων τῶν ἡδέων ἢ καθ' ὑπερβολὰς ἢ διὰ προαίρεσιν, δι' αὑτὰς καὶ μηδὲν δι' ἕτερον ἀποβαῖνον, ἀκόλαστος . . . ὁ δ' ἐλκείπων ὁ ἀντικείμενος, ὁ δὲ μέσος σώφρων. ὁμίως δὲ καὶ ὁ φεύγων τὰς σωματικὰς λύπας μὴ δι' ἧτταν ἀλλὰ διὰ προαίρεσιν. The μαλακὸς, on the other hand (who is defined 1150, b, 1 as ἐλλείπων πρὸς ἃ οἱ πολλοὶ καὶ ἀντιτείνουσι καὶ δύνανται), avoids pain undesignedly. ἀντίκειται δὲ τῷ μὲν ἀκρατεῖ ὁ ἐγκρατής, τῷ δὲ μαλακῷ ὁ καρτερικός. c. 9, 1151, a, 11: the ἀκόλαστος desires immoderate bodily enjoyments on principle (διὰ τὸ πεπεῖσθαι), this desire having its roots in his moral character as a whole (διὰ τὸ τοιοῦτος εἶναι οἷος διώκειν αὐτάς) . . . ἔστι δέ τις διὰ πάθος ἐκστατικὸς παρὰ τὸν ὀρθὸν λόγον, ὃν ὥστε μὲν μὴ πράττειν κατὰ τὸν ὀρθὸν λόγον κρατεῖ τὸ πάθος, ὥστε δ' εἶναι τοιοῦτον οἷον πεπεῖσθαι διώκειν ἀνέδην δεῖν τὰς τοιαύτας ἡδονὰς οὐ κρατεῖ· οὗτός ἐστιν ὁ ἀκρατὴς βελτίων τοῦ ἀκολάστου, οὐδὲ φαῦλος ἁπλῶς· σώζεται γὰρ τὸ βέλτιστον, ἡ ἀρχή. ἄλλος δ' ἐναντίος, ὁ ἐμμενετικός καὶ οὐκ ἐκστατικὸς διά γε τὸ πάθος (and so, previously, c. 4, 1146, b, 22). C. 11, 1152, a, 15: the intemperate man acts indeed ἑκὼν, πονηρὸς δ' οὔ· ἡ γὰρ προαίρεσις ἐπιεικής· ὥσθ' ἡμιπόνηρος. He resembles a state which has good laws but which does not observe them; the πονηρὸς one in which the laws are observed, but are bad. He differs, therefore, from the ἀκόλαστος in that he feels remorse for his actions (cf. *Eth.* iii. 2, p. 590 *mid.* above) and is therefore not so incurable as the latter. Accordingly, Aristotle compares excess with epilepsy, ἀκολασία with dropsy and consumption (c. 8, 1150, a, 21, c. 9 *init.*). Two kinds of intemperance are further distinguished, ἀσθένεια and προπέτεια, that

3. *Friendship*

Upon the account of all that relates to the virtue of the individual, there follows, as already mentioned, a treatise upon Friendship. So morally beautiful is the conception of this relationship which we find here unfolded, so deep the feeling of its indispensableness, so pure and disinterested the character assigned to it, so kindly the disposition that is indicated, so profuse the wealth of refined and happy thoughts, that Aristotle could have left us no more splendid memorial of his own heart and character. Aristotle justifies himself for admitting a discussion upon Friendship into the *Ethics* partly by the remark that it also belongs to the account of virtue,[3] but chiefly on the ground of the

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which is deliberately pursued and that which, springing from violence of temper, is thoughtlessly pursued; of these the latter is described as more curable (c. 8, 1150, b, 19 sqq. c. 11, 1152, a, 18, 27). The inconstancy of the intemperate man finds its opposite extreme in the headstrong and self-willed man (*ἰσχυρογνώμων*, *ἰδιογνώμων*, c. 10, 1151, b, 4). The excesses of anger are less to be blamed than those of intemperance (c. 7, c. 8, 1150, a, 25 sqq.; cf. v. 10, 1135, b, 20–29 and p. 113, n. 1); still more excusable are exaggerations of noble impulses (c. 6, 1148, a, 22 sqq.). On anger, fear, compassion, envy, &c. see also *Rhet.* ii. 2, 5–11.

[1] C. 11, 1151, b, 34: ὅ τε γὰρ ἐγκρατὴς οἷος μηδὲν παρὰ τὸν λόγον διὰ τὰς σωματικὰς ἡδονὰς ποιεῖν καὶ ὁ σώφρων, ἀλλ' ὁ μὲν ἔχων ὁ δ' οὐκ ἔχων φαύλας ἐπιθυμίας, παὶ ὁ μὲν τοιοῦτος οἷος μὴ ἥδεσθαι παρὰ τὸν λόγον, ὁ δ' οἷος ἥδεσθαι ἀλλὰ μὴ ἄγεσθαι.

[2] P. 155 (*Eth.* vii. 5.)

[3] ἔστι γὰρ ἀρετή τις ἢ μετ' ἀρετῆς: viii. 1 *init.*

significance it has for human life. Everyone requires friends:[1] the happy man, that he may keep his happiness and enjoy it by sharing it with others;[2] the afflicted, for comfort and support; youth, for advice; manhood, for united action; old age, for assistance. Friendship is a law of nature: it unites parents and children by a natural bond, citizen with citizen, man with man.[3] What justice demands is supplied in the highest degree by friendship, for it produces a unanimity in which there no longer occurs any violation of mutual rights.[4] It is, therefore, not only outwardly but morally necessary.[5] The social impulses of man find in it their most immediate expression and satisfaction; and just for this reason it constitutes in Aristotle's view an essential part of Ethics. For as Ethics is conceived by him in general as Politics, and the moral life as life in society,[6] so no account of moral activity can be to him complete which does not represent it as socially constructive. The examination, therefore, of Friendship, while completing the study of Ethics, constitutes at the same time the link which unites it with the doctrine of the State.[1]

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[1] For what follows see *Eth.* viii. 1, 1155, a, 4–16.

[2] *Ibid.* ἄνευ γὰρ φίλων οὐδεὶς ἕλοιτ' ἂν ζῆν, ἔχων τὰ λοιπὰ ἀγαθὰ πάντα . . . τί γὰρ ὄφελος τῆς τοιαύτης εὐετηρίας ἀφαιρεθείσης εὐεργεσίας, ἣ γίγνεται μάλιστα καὶ ἐπαινετωτάτη πρὸς φίλους.

[3] *Ibid.* c. 16–26, where *inter alia*: ἴδοι δ' ἄν τις καὶ ἐν ταῖς πλάναις [wanderings] ὡς οἰκεῖον ἅπας ἄνθρωπος ἀνθρώπῳ καὶ φίλον. Cf. ix. 9, 1169, b, 17: ἄτοπον δ' ἴσως καὶ τὸ μονώτην ποιεῖν τὸν μακάριον· οὐθεὶς γὰρ ἕλοιτ' ἂν καθ' αὑτὸν τὰ πάντ' ἔχειν ἀγαθά· πολιτικὸν γὰρ ὁ ἄνθρωπος καὶ συζῆν πεφυκός. On this see further *infra.*

[4] *Ibid.* l. 24 sqq.; hence, φίλων μὲν ὄντων οὐδὲν δεῖ δικαιοσύνης, δίκαιοι δ' ὄντες προσδέονται φιλίας, καὶ τῶν δικαίων τὸ μάλιστα φιλικὸν εἶναι δοκεῖ [the highest justice is the justice of friends].

[5] L. 28; οὐ μόνον δ' ἀναγκαῖόν ἐστιν ἀλλὰ καὶ καλόν.

[6] See on this line p. 186, n. 1. *Eth.* x. 7, 1177, a, 30: ὁ μὲν δίκαιος δεῖται πρὸς οὓς δικαιοπραγήσει καὶ μεθ' ὧν, ὁμοίως δὲ καὶ ὁ σώφρων καὶ ὁ ἀνδρεῖος καὶ τῶν ἄλλων ἕκαστος, only theoretic virtue is self-sufficient; c. 8, 1178, b, 5: ᾗ δ' ἄνθρωπός ἐστι καὶ πλείοσι συζῇ αἱρεῖται τὰ κατ' ἀρετὴν πράττειν. Cf. p. 144, n. 1, *supra.*

By friendship Aristotle understands in general every relationship of mutual good will of which both parties are conscious.[2] This relationship, however, will assume a different character according to the nature of the basis upon which it rests. The objects of our attachment are in general three: the good, the pleasurable, and the useful;[3] and in our friends it will be sometimes one of these, sometimes another, which attracts us. We seek their friendship either on account of the advantages which we expect from them, or on account of the pleasure which they give us, or on account of the good that we find in them. A true friendship, however, can be based only upon the last of these three motives. He who loves his friend only for the sake of the profit or the pleasure which he obtains from him, does not truly love him, but only his own advantage and enjoyment: with these accordingly his friendship changes.[4] True friendship exists between those alone who have spiritual affinities with one another, and is founded upon virtue and esteem. In such a friendship each loves the other for what he is in himself. He seeks his personal advantage and pleasure in that which is good absolutely and in itself. Such a friendship cannot be formed quickly, for the friend must be tried by long intercourse before he can be trusted;[1] nor can it be extended to many, for an inner relationship and a close acquaintance is only possible with a few at the same time.[2] It is, moreover, no mere matter of feeling and inclination, however indispensable these may be to it, but of character,[3] of which it is as lasting an element as the virtue to which it is

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[1] Aristotle inserts, however, two sections upon pleasure and happiness between them, in the tenth book—thus connecting the end of the *Ethics* with the beginning, where the end of human effort had been defined as happiness.

[2] VIII. 2, 1155, b, 31 sqq. (where, however, l. 33, μὴ must be omitted after ἐάν). Friendship is here defined as εὔνοια ἐν ἀντιπεπονθόσι μὴ λανθάνουσα, as mutual good will becomes friendship only when each knows that the other wishes him well. The definition of the φίλος, *Rhet.* i. 5, 1361, b, 36, as one ὅστις ἃ οἴεται ἀγαθὰ εἶναι ἐκείνῳ, πρακτικός ἐστιν αὐτῶν δι' ἐκεῖνον, is a superficial one for rhetorical purposes.

[3] *Ibid.* 1155. b, 18: δοκεῖ γὰρ οὐ πᾶν φιλεῖσθαι ἀλλὰ τὸ φιλητὸν, τοῦτο δ' εἶναι ἀγαθὸν ἢ ἡδὺ ἢ χρήσιμον.

[4] *Ibid.* c. 3, 5. Friendships for the sake of profit are formed for the most part among older

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people; those that are for the sake of pleasure, among the young. Only the latter require that the friends should live together, and they are least durable when the parties are unlike one another and pursue different ends: the one, for instance (as in unworthy love affairs), his own pleasure, the other his advantage. Cf. c. 10, 1159, b, 15, ix. 1, 1164, a, 3 sqq.

[1] VIII. 4 *init.*: *τελεία δ' ἐστὶν ἡ τῶν ἀγαθῶν φιλία καὶ κατ' ἀρετὴν ὁμοίων· οὗτοι γὰρ τἀγαθὰ ὁμοίως βούλονται ἀλλήλοις ᾗ ἀγαθοί· ἀγαθοὶ δ' εἰσὶ καθ' αὑτούς. οἱ δὲ βουλόμενοι τἀγαθὰ τοῖς φίλοις ἐκείνων ἕνεκα, μάλιστα φίλοι· δι' αὑτοὺς γὰρ οὕτως ἔχουσι καὶ οὐ κατὰ συμβεβηκός* [they are friends for the sake of one another and not of merely accidental object]· *διαμένει οὖν ἡ τούτων φιλία ἕως ἂν ἀγαθοὶ ὦσιν, ἡ δ' ἀρετὴ μόνιμον.* *Ibid.* c. 6 *init.*: *οἱ μὲν φαῦλοι ἔσονται φίλοι δι' ἡδονὴν ἢ τὸ χρήσιμον, ταύτῃ ὅμοιοι ὄντες, οἱ δ' ἀγαθοὶ δι' αὑτοὺς φίλοι· ᾗ γὰρ ἀγαθοί* [for they are so in so far as they are good]. *οὗτοι μὲν οὖν ἁπλῶς φίλοι, ἐκεῖνοι δὲ κατὰ συμβεβηκὸς καὶ τῷ ὡμοιῶσθαι τούτοις.* Cf. n. 2 on following page.

[2] VIII. 7, 1158, a, 10 sqq., and still more fully ix. 10.

[3] VIII. 7, 1157, b, 28: *ἔοικε δ' ἡ μὲν φίλησις πάθει, ἡ δὲ φιλία ἕξει* (on *ἕξις*, see p. 285, n. 3, and p. 153, n. 3, *supra*)· *ἡ γὰρ φίλησις οὐχ ἧττον πρὸς τὰ ἄψυχά ἐστιν, ἀντιφιλοῦσι δὲ μετὰ προαιρέσεως, ἡ δὲ προαίρεσις ἀφ' ἕξεως, καὶ τἀγαθὰ βούλονται τοῖς φιλουμένοις ἐκείνων ἕνεκα, οὐ κατὰ πάθος ἀλλὰ καθ' ἕξιν.* But on the other hand, as is further remarked, mutual pleasure in one another's society is an element in friendship; of morose persons it is said, *ibid.* 1158, a, 7: *οἱ τοιοῦτοι εὖνοι μέν εἰσιν ἀλλήλοις· βούλονται γὰρ τἀγαθὰ καὶ ἀπαντῶσιν εἰς τὰς χρείας· φίλοι δ' οὐ πάνυ εἰσὶ διὰ τὸ μὴ συνημερεύειν μηδὲ χαίρειν ἀλλήλοις, ἃ δὴ μάλιστ' εἶναι δοκεῖ φιλικά.*

equivalent. Every other kind, attaching as it does to what is external and unessential, is merely an imperfect copy of this true friendship.[1] This requires that friends should love only the good in one another, that they should receive only good from one another and return only good.[2] Virtuous men, on the other hand, neither demand nor perform any unworthy service to one another, nor even permit it to be done for them.[3] But just as true friendship rests on likeness and equality of character and spiritual gifts, all friendship may be said to rest upon equality.[4] The equality is perfect when both parties, besides having like objects in view, are like one another in respect of worth. When, on the other hand, the object of each is different,[1] or when one of the parties is superior to the other,[2] we have proportional instead of perfect equality or analogy: each lays claim to love and service from the other, proportionate to his worth to him.[3] Friendship is thus akin to justice, in which also the question is one of the establishment of equality in the relations of human society;[4] but law and right take account in the first instance of relations of inequality, in which individuals are treated in proportion to their worth, and only secondarily of relations of equality, whereas in friendship the reverse is the case: that which is primary and perfect is the friendship between equals, while that which exists between those who are not equals is only secondary.[1]

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[1] See n. 1 on preceding page, and viii. 8, 1158, b, 4 sqq. c. 10, 1159, b, 2 sqq.

[2] C. 4, 1156, b, 12: *ἔστιν ἑκάτερος ἁπλῶς ἀγαθὸς καὶ τῷ φίλῳ* [each is not only *per se* good, but a good to his friend]. *οἱ γὰρ ἀγαθοὶ καὶ ἁπλῶς ἀγαθοὶ καὶ ἀλλήλοις ὠφέλιμοι. ὁμοίως δὲ καὶ ἡδεῖς· καὶ γὰρ ἁπλῶς οἱ ἀγαθοὶ ἡδεῖς καὶ ἀλλήλοις· ἑκάστῳ γὰρ καθ' ἡδονήν εἰσιν αἱ οἰκεῖαι πράξεις καὶ αἱ τοιαῦται, τῶν ἀγαθῶν δὲ αἱ αὐταὶ ἢ ὅμοιαι.* c. 7, 1157, b, 33: *φιλοῦντες τὸν φίλον τὸ αὑτοῖς ἀγαθὸν φιλοῦσιν· ὁ γὰρ ἀγαθὸς φίλος γενόμενος ἀγαθὸν γίνεται ᾧ φίλος· ἑκάτερος οὖν φιλεῖ τε τὸ αὑτῷ ἀγαθόν, καὶ τὸ ἴσον ἀνταποδίδωσι τῇ βουλήσει καὶ τῷ ἡδεῖ· λέγεται γὰρ φιλότης ἡ ἰσότης* [or with Cod. K^b omit ἡ, so that the same proverb is here cited as ix. 8, 1168, b, 8: *λέγεται γάρ· φιλότης ἰσότης*]· *μάλιστα δὴ τῇ τῶν ἀγαθῶν ταῦθ' ὑπάρχει.*

[3] C. 10, 1159, b, 4.

[4] See n. 2 supra ~~2 on preceding~~ page, and viii. 10, 1159, a, 34: *μᾶλλον δὲ τῆς φιλίας οὔσης ἐν τῷ φιλεῖν καὶ τῶν φιλοφίλων ἐπαινουμένων, φίλων ἀρετῇ τὸ φιλεῖν ἔοικεν* [which we cannot explain with BRANDIS, p. 1476, as 'the love of friends is like the love of their virtue,' for the words preceding forbid this translation; the meaning is: 'inasmuch as love is a praiseworthy thing, it is a kind of perfection in the friends, or is based upon perfection; as, therefore, the friendship that rests upon actual merits is lasting, that which rests upon true love must be so too]. *ὥστ' ἐν οἷς τοῦτο γίνεται κατ' ἀξίαν, οὗτοι μόνιμοι φίλοι καὶ ἡ τούτων φιλία. οὕτω δ' ἂν καὶ οἱ ἄνισοι μάλιστ' εἶεν φίλοι· ἰσάζοιντο γὰρ ἄν. ἡ δ' ἰσότης καὶ ὁμοιότης φιλότης, καὶ μάλιστα μὲν ἡ τῶν κατ' ἀρετὴν ὁμοιότης . . . ἐξ ἐναντίων δὲ μάλιστα μὲν δοκεῖ ἡ διὰ τὸ χρήσιμον γίγνεσθαι φιλία, οἷον πένης πλουσίῳ, ἀμαθὴς εἰδότι· οὗ γὰρ τυγχάνει τις ἐνδεὴς ὤν, τούτου ἐφιέμενος ἀντιδωρεῖται ἄλλῳ.* This is so even in the case of lovers. *ἴσως δὲ οὐδ' ἐφίεται τὸ ἐναντίον τοῦ ἐναντίου καθ' αὑτό, ἀλλὰ κατὰ συμβεβηκός. ἡ δ' ὄρεξις τοῦ μέσου ἐστίν. τοῦτο γὰρ ἀγαθόν.* Cf. n. 2, *supra.*

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[1] As in the case of the lover and his beloved, or the artist and DIENCE his ~~pupil~~, in which the one party seeks pleasure, the other advantage; or of the sophist and his disciple, in which the former teaches and the latter pays; ix. 1, 1164, a, 2–32: cf. p. 193, n. 4, *sup.*

[2] *E.g.* the relation of parents and children, elders and youths, man and wife, ruler and ruled, viii. 8, 1158, a, 8, and elsewhere.

[3] VIII. 8 *init.*: εἰσὶ δ' οὖν αἱ εἰρημέναι φιλίαι ἐν ἰσότητι· τὰ γὰρ αὐτὰ γίγνεται ἀπ' ἀμφοῖν καὶ βούλονται ἀλλήλοις ἢ ἕτερον ἀνθ' ἑτέρου ἀντικαταλλάττονται, οἷον ἡδονὴν ἀντ' ὠφελείας. c. 15 *init.*: τριττῶν δ' οὐσῶν φιλιῶν . . . καὶ καθ' ἑκάστην τῶν μὲν ἐν ἰσότητι φίλων ὄντων τῶν δὲ καθ' ὑπεροχὴν (καὶ γὰρ ὁμοίως ἀγαθοὶ φίλοι γίνονται καὶ ἀμείνων χείρονι, ὁμοίως δὲ καὶ ἡδεῖς, καὶ διὰ τὸ χρήσιμον ἰσάζοντες ταῖς ὠφελείαις καὶ διαφέροντες) τοὺς ἴσους μὲν κατ' ἰσότητα δεῖ τῷ φιλεῖν καὶ τοῖς λοιποῖς ἰσάζειν, τοὺς δ' ἀνίσους τῷ ἀνάλογον ταῖς ὑπεροχαις ἀποδιδόναι. c. 8, 1158, b, 17 (after citing examples of friendship in unlike relations): ἑτέρα γὰρ ἑκάστου τούτων ἀρετὴ καὶ τὸ ἔργον, ἕτερα δὲ καὶ δι' ἃ φιλοῦσιν· ἕτεραι οὖν καὶ αἱ φιλήσεις καὶ αἱ φιλίαι. Parents perform a different service for children from that which children perform for parents; so long as each party does the duty that belongs to it they are in a right and enduring relation to each other. ἀνάλογον δ' ἐν πάσαις ταῖς καθ' ὑπεροχὴν οὔσαις φιλίαις καὶ τὴν φίλησιν δεῖ γίνεσθαι, οἷον τὸν ἀμείνω μᾶλλον φιλεῖσθαι ἢ φιλεῖν, καὶ τὸν ὠφελιμώτερον, καὶ τῶν ἄλλων ἕκαστον ὁμοίως· ὅταν γὰρ κατ' ἀξίαν ἡ φίλησις γίγνηται, τότε γίγνεταί πως ἰσότης ὃ δὴ τῆς φιλίας εἶναι δοκεῖ. Cf. c. 13, 1161, a, 21, c. 16, 1163, b, 11: τὸ κατ' ἀξίαν γὰρ ἐπανισοῖ καὶ σώζει τὴν φιλίαν. ix. 1 *init.*: ἐν πάσαις δὲ ταῖς ἀνομοειδέσι φιλίαις [those in which the two parties pursue different ends] τὸ ἀνάλογον ἰσάζει καὶ σώζει τὴν φιλίαν, καθάπερ εἴρηται, οἷον καὶ ἐν τῇ πολιτικῇ τῷ σκυτοτόμῳ ἀντὶ τῶν ὑποδημάτων ἀμοιβὴ γίνεται κατ' ἀξίαν, &c.

[4] VIII. 11 *init.*: ἔοικε δὲ . . . περὶ ταὐτὰ καὶ ἐν τοῖς αὐτοῖς εἶναι ἥ τε φιλία καὶ τὸ δίκαιον· ἐν ἁπάσῃ γὰρ κοινωνίᾳ δοκεῖ τι δίκαιον εἶναι καὶ φιλία δέ. . . . καθ' ὅσον δὲ κοινωνοῦσιν, ἐπὶ τοσοῦτόν ἐστι φιλία· καὶ γὰρ τὸ δίκαιον. Cf. p. 192, n. 4, *supra.*

Aristotle next discusses those connections which are analogous to friendship in the narrower sense. He remarks that every community, even such as exists for a special purpose, involves a kind of friendship, and he shows especially with regard to that form of community which embraces all others—namely, the political—what personal relations correspond to its principal forms, that is, to the various kinds of constitution.[2] From these, which are more of the nature of contracts, he then proceeds to separate the relationships of kindred and pure friendship.[1] On the same principle he distinguishes later on[2] two kinds of the friendship which rests on mutual advantage, which are related to one another as written to unwritten law: the legal, in which the mutual obligations are definitely fixed, and which therefore is merely a form of contract; and the moral, in which the services to be rendered are left to the good will of the individual. Aristotle further examines the occasions which give rise to discord and separation between friends. He remarks that it is chiefly in friendship for the sake of advantage that mutual recriminations arise, for where friendship is cherished for the sake of virtue there is a rivalry in mutual service, which successfully excludes any sense of unfairness on either side; where it is founded merely upon pleasure it is likewise impossible for either party to complain of unfairness, if he fails to find what he seeks. On the other hand, the man who performs a friendly service in the hope of obtaining a like return, too often finds himself disappointed in his expectations.[3] The same may be said of friendships between unequals. Here also unfair claims are frequently made, whereas justice demands that the more worthy should be recompensed for that which cannot be repaid to him in kind by a corresponding measure of honour.[4] Finally, misunderstandings easily arise where each party has a different object in view in entering upon the alliance.[1] Aristotle further discusses the cases where a man's duty towards his friend conflicts with his duty towards others, and he lays down the wise principle that in each case we must consider the peculiar obligations which the circumstances involve.[2] He asks whether a friendly alliance should be dissolved if one of the parties to it changes, and he answers that separation is unavoidable in cases where the change is one in the essential conditions of the connection.[3] He surveys the relation between love of self and love of friends, recognising in the latter a reflection of the attitude which the virtuous man maintains towards himself;[4] and he connects with this the question whether one should love oneself or one's friend more, deciding it by pointing out that it is impossible that there should be any real opposition between the claims of those two, since true self-love consists in coveting for ourselves what is best—*i.e.* the morally beautiful and great; but we participate in this only the more fully in proportion to the sacrifice we make for a friend.[1] In the same spirit Aristotle expresses himself (to pass over other points [2]) upon the view that the happy man can dispense with friends. He denies this on many grounds.[3] The happy man, he says, needs friends whom he may benefit; the contemplation of their excellence affords a high sense of enjoyment akin to the consciousness of one's own; it is easier to energise in company with others than alone; one gains moral invigoration for oneself from intercourse with good men. Above all, man is by nature formed for association with others, and the happy man can least afford to lead a solitary life;[4] for just as to each man his own life and activity is a good, and his consciousness of that life and activity a pleasure, so also the existence of a friend, in whom his own existence is doubled, and the consciousness of this existence, which he enjoys in intercourse with him, must be a joy and a good.[5] But

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[1] VIII. 9 *init.*: οὐχ ὁμοίως δὲ τὸ ἴσον ἔν τε τοῖς δικαίοις καὶ ἐν τῇ φιλίᾳ φαίνεται ἔχειν· ἔστι γὰρ ἐν μὲν τοῖς δικαίοις ἴσον πρώτως τὸ κατ' ἀξίαν [i.e. διανεμητικὸν δίκαιον, which is based upon analogy; see p. 171 sqq.], τὸ δὲ κατὰ ποσὸν [i.e. διορθωτικὸν, which proceeds upon the principle of arithmetical equality] δευτέρως, ἐν δὲ τῇ φιλίᾳ τὸ μὲν κατὰ ποσὸν πρώτως [since perfect friendship, of which all other forms are imperfect imitations, is that which is concluded between persons equally worthy for the sake of their worth; see p. 194, n. 1, and 195, n. 2, *supra*], τὸ δὲ κατ' ἀξίαν δευτέρως: in support of which Aristotle points to the fact that where the inequality is very great, as in the case of men and gods or (c. 13, 1161, a, 32 sqq.) master and slave, no friendship is possible; but in such cases there are not even rights (c. 18, *ibid.*; cf. x. 8, 1178, b, 10). The distinction, as a whole, is rather a trifling one, and it is obvious from the quotations on p. 196, n. 4, and p. 192, n. 4, *supra*, that it was not accepted even by Aristotle himself as exhaustive of the subject. The reason is to be found in the obscurity caused by his failure clearly to separate between the legal and the moral side of justice.

[2] On the special relations of travelling companions, comrades in war, members of clans, guilds, &c., cf. viii. 11; on the State and the various forms of constitution, c. 12 sq., and p. 196, n. 4, *supra*.

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[1] VIII. 14 *init.*: ἐν κοινωνίᾳ μὲν οὖν πᾶσα φιλία ἐστὶν, καθάπερ εἴρηται· ἀφορίσειε δ' ἄν τις τήν τε συγγενικὴν καὶ τὴν ἑταιρικήν. αἱ δὲ πολιτικαὶ καὶ φυλετικαὶ καὶ συμπλοϊκαὶ, καὶ ὅσαι τοιαῦται, κοινωνικαῖς ἐοίκασι μᾶλλον· οἷον γὰρ καθ' ὁμολογίαν τινὰ φαίνονται εἶναι. εἰς ταύτας δὲ τάξειεν ἄν τις καὶ τὴν ξενικήν. Relationships of kindred are discussed in c. 14, partly also c. 12 sq. We shall return to these in the section upon the Family.

[2] VIII. 15, 1162, b, 21 sqq.

[3] See the interesting discussion in viii. 15. Cf. also what is said on the relation of teacher and scholar, ix. 1, 1164, a, 32 sqq.

[4] VIII. 16.

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[1] For the fuller discussion of this case see ix. 1; cf. p. 193, n. 4, *supra*.

[2] IX. 2, especially 1165, a, 16, 30: ἐπεὶ δ' ἕτερα γονεῦσι καὶ ἀδελφοῖς καὶ ἑταίροις καὶ εὐεργέταις, ἑκάστοις τὰ οἰκεῖα καὶ τὰ ἁρμόττοντα ἀπονεμητέον . . . καὶ συγγενέσι δὴ καὶ φυλέταις καὶ πολίταις καὶ τοῖς λοιποῖς ἅπασιν ἀεὶ πειρατέον τὸ οἰκεῖον ἀπονέμειν, καὶ συγκρίνειν τὰ ἑκάστοις ὑπάρχοντα κατ' οἰκειότητα καὶ ἀρετὴν ἢ χρῆσιν. When the relation is homogeneous this comparison is easier: when heterogeneous, it is more difficult to make; but even in the latter case it cannot be neglected.

[3] IX. 3: this is, of course, the case where the friendship is based upon pleasure or advantage; or, again, when one has been deceived in a friend, supposing oneself to have been loved disinterestedly (διὰ τὸ ἦθος), while with the other it was only a matter of pleasure or profit. If a friend degenerates morally, the first duty is to aid him in recovering himself, but if he proves incurable, separation is the only resource, for one cannot and ought not to love a bad man. If, lastly, as is often the case in youthful companionships, the one outruns the other in moral and intellectual development, true fellowship becomes henceforth impossible; nevertheless, the early connection should be honoured as much as it can be.

[4] IX. 4, *ibid.* 1166, b, 6–29, where the discord in the soul of

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the wicked is depicted with remarkable truth, and the moral is drawn consistently with the practical aim of the *Ethics*: εἰ δὴ τὸ οὕτως ἔχειν λίαν ἐστὶν ἄθλιον, φευκτέον τὴν μοχθηρίαν διατεταμένως &c.

[1] IX. 8, see p. 133, n. 2, *supra*, *ad fin.*, p. 151, n. 2, *supra*.

[2] The relation of εὔνοια (ix. 5) and ὁμόνοια (c. 6) to φιλία; the apparent fact that the benefactor usually loves the benefited more than the latter the former, every one loving his own production, as the mother does her children (c. 8); the number of one's friends, which ought to be neither too small nor too great, but ought to include so many ὅσοι εἰς τὸ συζῆν ἱκανοί, seeing that a close relationship is possible only between few, the closest (ἔρως as ὑπερβολὴ φιλίας), only between two; although of political friends (members of the same party) one can have a great number.

[3] IX. 9, cf. viii. 1, 1155, a, 5.

[4] IX, 9, 1169, b, 17; see p. 192, n. 3, *supra*.

[5] *Ibid.* 1170, a, 13 sqq. where,

if we ask further whether we require friends more in prosperity or adversity, the answer is,[1] that it is more *necessary* to possess them in adversity, *nobler* in prosperity.[2] In the former case we are more in need of their help; manly natures, which know how to bear pain alone, have more need of friendly sympathy in the other case. A man ought to be eager to invite his friends to share his joys, loath to have recourse to them in sorrow; on the other hand, he ought to be more ready to hasten to them when they are in trouble than in joy. True friendship, however, demands both.[3] Friendship is an association and community of life, an extension of self-love to embrace others. Each takes the same delight in the existence and activity of his friend as he does in his own, and imparts to his friend what he most values himself.[4] Friendship, therefore,

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after first referring to αἰσθάνεσθαι and νοεῖν as constituents of human life, Aristotle proceeds, l. 19: τὸ δὲ ζῆν τῶν καθ' αὑτὸ ἀγαθῶν καὶ ἡδέων . . . διόπερ ἔοικε πᾶσιν ἡδὺ εἶναι. b, 1: τὸ δ' αἰσθάνεσθαι ὅτι ζῇ τῶν ἡδέων καθ' αὑτό· φύσει γὰρ ἀγαθὸν ζωή, τὸ δ' ἀγαθὸν ὑπάρχον ἐν ἑαυτῷ αἰσθάνεσθαι ἡδύ. [In being conscious of perception and thought we are conscious of life: τὸ γὰρ εἶναι ἦν αἰσθάνεσθαι καὶ νοεῖν, a, 32.] . . . ὡς δὲ πρὸς ἑαυτὸν ἔχει ὁ σπουδαῖος, καὶ πρὸς τὸν φίλον· ἕτερος γὰρ αὐτὸς ὁ φίλος ἐστίν. καθάπερ οὖν τὸ αὐτὸν εἶναι αἱρετόν ἐστιν ἑκάστῳ, οὕτω καὶ τὸ τὸν φίλον ἢ παραπλησίως. τὸ δ' εἶναι ἦν αἱρετὸν διὰ τὸ αἰσθάνεσθαι αὑτοῦ ἀγαθοῦ ὄντος. ἡ δὲ τοιαύτη αἴσθησις ἡδεῖα καθ' ἑαυτήν, συναισθάνεσθαι ἄρα δεῖ καὶ τοῦ φίλου ὅτι ἔστιν, τοῦτο δὲ γίνοιτ' ἂν ἐν τῷ συζῆν καὶ κοινωνεῖν λόγων καὶ διανοίας· οὕτω γὰρ ἂν δόξειε τὸ συζῆν ἐπὶ τῶν ἀνθρώπων λέγεσθαι, καὶ οὐχ ὥσπερ ἐπὶ τῶν βοσκημάτων τὸ ἐν τῷ αὐτῷ νέμεσθαι.

[1] IX. 11.

[2] A similar distinction between ἀναγκαῖον and ἀγαθὸν or καλὸν has already come before us, p. 165, n. 1 (from *Metaph.* i. 2), 192, n. 5, *supra*. Cf. *Polit.* vii. 14, 1333, a, 36: τὰ δ' ἀναγκαῖα καὶ χρήσιμα τῶν καλῶν ἕνεκεν.

[3] ἡ παρουσία δὴ τῶν φίλων, c. 11 concludes, ἐν ἅπασιν αἱρετὴ φαίνεται.

[4] See n. 5 above, and ix. 12 (at the end of the section upon friendship): ἆρ' οὖν, ὥσπερ τοῖς ἐρῶσι τὸ ὁρᾶν ἀγαπητότατόν ἐστι, . . . οὕτω καὶ τοῖς φίλοις αἱρετώτατόν ἐστι τὸ συζῆν; κοινωνία γὰρ ἡ φιλία. καὶ ὡς πρὸς ἑαυτὸν ἔχει, οὕτω καὶ πρὸς

is the most conspicuous example of the natural sociableness and solidarity of mankind. It is the bond that unites men to one another, not in any merely outward manner, as by a community of legal rights, but by the deepest instincts of their nature. In friendship individual morality expands into a spiritual communion. But this communion is still limited and dependent on the accidental circumstances of personal relations. It is in the State that it first receives a wider scope and a more solid foundation in fixed laws and permanent institutions.

τὸν φίλον. περὶ αὑτὸν δ' ἡ αἴσθησις ὅτι ἔστιν αἱρετή· καὶ περὶ τὸν φίλον δή· ἡ δ' ἐνέργεια γίνεται αὐτοῖς ἐν τῷ συζῆν, &c.

CHAPTER XIII

PRACTICAL PHILOSOPHY—(CONTINUED)

B.—Politics[1]

1. *Necessity, Nature and Function of the State*

Of Aristotle's theory of the State it may be said, as of some other portions of his philosophy, that there are several points in it on which it is difficult for us to obtain certainty or completeness of view, owing to the state in which his treatise on Politics has come down to us. So rare is the union, so unequal, where they exist, the distribution, of the powers and qualities which we here find combined in equal proportions, that the eight books of the *Politics* of Aristotle form, indeed, one of the most remarkable works that antiquity has bequeathed to us. With the most comprehensive knowledge of the facts of history and the completest insight into the actual conditions of social life, Aristotle here combines the subtlest power of marshalling in the service of scientific thought the materials which are so supplied. But the completion of the work was probably prevented by the death of the author;[1] and when the sketches which he had left came to be put together,[2] it was impossible to avoid *lacunæ*, and these must always remain a serious hindrance to the student of the *Politics*, even although the leading thoughts and fundamental features of the treatise are hardly affected by them.

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[1] On the more recent literature which treats of Aristotle's theory of the State as a whole and in its several parts, see HILDENBRAND, *Gesch. u. Syst. der Rechts- und Staatsphilosophie* (Leipzig, 1860), i. 342 sqq.: UEBERWEG, *Grundriss*, i. 203 sq. (5th ed. 1876); SUSEMIHL, *Jahrb. f. Philol.* vol. xcix. 593, ciii. 119, and BURSIAN'S *Jahresbericht*, 1874, p. 592 sq. 1877, p. 372 sqq.

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[1] See Appendix.

[2] Here, as in the case of the *Metaphysics* (see p. 76 sq. *supra*), the notes left by Aristotle seem to have been simply put together without revision or alteration. Tradition does not tell us who undertook this task; but as Theophrastus is named as the editor of the *Metaphysics* (p. 79), it may have been he; which would explain the fact that the *Politics* seems to have been in circulation also under his name. It is alluded to by Diog. v. 24, in the curious words: *πολιτικῆς ἀκροάσεως ὥς ἡ Θεοφράστου ά—ή.* As they stand, these words give no conceivable sense, as it could not have been intended to explain the nature of Aristotle's *Politics* by comparing them with Theophrastus's as the better known. The question, therefore, rises whether the words *πολ. ἀκροάσεως ά—ή* are not alone original, *ἣ Θεοφράστου* having been first placed in the margin by another hand, and then incorporated in the text as *ἡ Θεοφρ.* with *ὡς* taken from *ἀκροάσεως* preceding it. KROHN (*ibid.* 51) supposes that the conjunction of the works of Theophrastus and Aristotle in the cellar at Scepsis may partly explain why much that belongs to Theophrastus should have found its way into the *Politics* of Aristotle, and why it finally came to be thought that Theophrastus was its author; but the indications given, p. 150, *supra*, of the use of the work up to the time of Cicero, make it impossible to accept this view, even were we to grant that the note, *ὡς ἡ Θεοφρ.*, did not find a place in Hermippus's enumeration until after Apellicon's discovery of the books, and to treat Krohn's elimination of the supposed Theophrastian passages from our text as less arbitrary than it is.—The same arguments hold good also against HILDENBRAND'S (*Gesch. d. Rechts- u. Staatsphil.* i. 360) and ONCKEN'S (*Staatsl. d. Arist.* i. 65 sq.) supposition that the *Politics* at the death of the author existed only in the original MS., and that between the death of Theophrastus and Apellicon's discovery it had disappeared. It may, indeed, appear strange that during this period we find such meagre traces of it, but this finds sufficient explanation in the feebleness of the interest taken at this time in political investigations, and the poverty of the philosophical remains that have survived to us from it. Even in the later ages, this most important account of Aristotle's political doctrines is seldom mentioned (see the passages cited by SUSEMIHL, p. xlv, who follows SPENGEL, *Ueb. d. Pol. d. Arist.* [*Abh. d. Münchn. Akad.* v. 44], and HEITZ, *Verl. Schr. d. Ar.* 242—hardly a dozen in fifteen centuries), and, apart from the extract in STOBÆUS (see p. 203, *supra*), is not discussed with any fullness except by the Platonist EUBULUS (Part iii. a, 719, b, 408, 1, PORPH. *V. Plot.* 15, 20), a part of whose

However valuable individual virtue and the knowledge which instructs us in it may be, Aristotle yet finds, as was to be expected in a Greek, that both are inadequate so long as they are confined to individuals. Morality finds its first perfect realisation in the State. In itself, the moral activity of a community is greater, more perfect, nobler, and more divine than that of individuals.[1] But even the continuous production and maintenance of virtue is dependent wholly upon the State. Mere instruction is insufficient in the vast majority of cases: he who is a slave to desire neither listens to admonition nor understands it. It is fear of punishment, not aversion to evil, that moves him. He knows nothing of joy in what is noble for its own sake. How is it possible, then, to correct inveterate tendencies by mere exhortation? Habit and education alone are of any avail, not only with children, but with adults as well, for these also are for the most part amenable only to legal constraint. But a good education and stringent laws are possible only in the State.[2] Only in the State can man attain his proper good.[3] Life in the State is the natural vocation of man. His nature has

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'Επίσκεψις τῶν ὑπ' 'Αριστοτέλους ἐν δευτέρῳ τῶν Πολιτικῶν πρὸς τὴν Πλάτωνος Πολιτείαν ἀντειρημένων has been made public by Mai, *Collect. Vatic.* ii. 671 sqq.

[1] *Eth.* i. 1, 1094, b, 7: εἰ γὰρ καὶ ταὐτόν ἐστιν [τὸ τέλος] ἑνὶ καὶ πόλει, μεῖζόν γε καὶ τελεώτερον τὸ τῆς πόλεως φαίνεται καὶ λαβεῖν καὶ σώζειν· ἀγαπητὸν μὲν γὰρ καὶ ἑνὶ μόνῳ, κάλλιον δὲ καὶ θειότερον ἔθνει καὶ πόλεσιν.

[2] *Ibid.* x. 10.

[3] *Polit.* i. 1 *init.* Every society aims at some good, μάλιστα δὲ καὶ τοῦ κυριωτάτου πάντων [sc. στοχάζεται] ἡ πασῶν κυριωτάτη καὶ πάσας περιέχουσα τὰς ἄλλας· αὕτη

destined him for society,[1] as is clear from the fact that he alone of all creatures possesses the power of speech.[2] In the State moral activity finds at once its condition and completion. The State is the moral whole, and is therefore prior in itself to the individual and the family:[3] only in the order of its origin in time and of human need does it come after them.[4] Only a being who is more or who is less than human can live apart from the community of the State. To man it is indispensable. For as with moral culture he is the noblest of all creatures, so without law and right he is the worst—and the adjustment of rights is the function of the community at large.[5] The morality, therefore,

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δ' ἐστὶν ἡ καλουμένη πόλις καὶ ἡ κοινωνία ἡ πολιτική. *Eth.* i. 1, 1094, b, 6: τὸ ταύτης [τῆς πολιτικῆς] τέλος περιέχοι ἂν τὰ τῶν ἄλλων, ὥστε τοῦτ' ἂν εἴη τἀνθρώπινον ἀγαθόν. How far this is consistent with the higher place assigned to θεωρία has been already discussed, p. 143 sq. *supra.*

[1] *Polit.* i. 2, 1253, a, 2: ὅτι τῶν φύσει ἡ πόλις ἐστὶ, καὶ ὅτι ἄνθρωπος φύσει πολιτικὸν ζῷον. With a reference to this passage, iii. 6, 1278, b, 19: φύσει μέν ἐστιν ἄνθρωπος ζῷον πολιτικὸν, διὸ καὶ μηδὲν δεόμενοι τῆς παρ' ἀλλήλων βοηθείας οὐκ ἔλαττον ὀρέγονται τοῦ συζῆν. *Eth.* ix. 9; see p. 192, n. 3, *supra*; cf. preceding note.

[2] *Polit.* i. 2, 1253, a, 7 sqq.

[3] *Polit.* i. 2, 1253, a, 19: πρότερον δὴ τῇ φύσει πόλις ἢ οἰκία καὶ ἕκαστος ἡμῶν ἐστιν. τὸ γὰρ ὅλον πρότερον ἀναγκαῖον εἶναι τοῦ μέρους. . . . εἰ γὰρ μὴ αὐτάρκης ἕκαστος χωρισθεὶς, ὁμοίως τοῖς ἄλλοις μέρεσιν ἕξει πρὸς τὸ ὅλον. 1252, b, 30: διὸ πᾶσα πόλις φύσει ἐστὶν, εἴπερ καὶ αἱ πρῶται κοινωνίαι· τέλος γὰρ αὕται ἐκείνων, ἡ δὲ φύσις τέλος ἐστίν.

[4] Only in this sense is it said, *Eth.* viii. 14, 1162, a, 17: ἄνθρωπος γὰρ τῇ φύσει συνδυαστικὸν μᾶλλον ἢ πολιτικὸν, ὅσῳ πρότερον καὶ ἀναγκαιότερον οἰκία πόλεως. That is ἀναγκαῖον which serves to satisfy a physical need, and is therefore definitely distinct from τὸ καλόν; see p. 201, n. 2, *supra.* But this does not prejudice the subordination of every other social bond to the political. On the other hand, the State and the household seem rather to be regarded by Eudemus as parallel institutions (see *Eud.* vii. 10, 1242, a, 22: ὁ γὰρ ἄνθρωπος οὐ μόνον πολιτικὸν ἀλλὰ καὶ οἰκονομικὸν ζῷον), economics being also separated by him from politics; see p. 186, n. 4, *supra.*

[5] *Polit.* i. 2, 1253, a, 27: ὁ δὲ μὴ δυνάμενος κοινωνεῖν, ἢ μηθὲν

of individuals has its indispensable complement in the State: Ethics is fulfilled in Politics.

It follows from what has just been said, that the function of the State cannot, according to Aristotle, be limited to that which even then, it would seem, was held by some, as it has been held by a much larger number in modern times, to be its only one—namely, the protection of person and property. The State certainly owes its origin, as Aristotle admits, primarily to a human need. Families unite in communities for purposes of intercourse; communities again into States. But the conception of the State is not thereby exhausted. Its function does not stop with care for the physical wellbeing of its members, since this care is extended to slaves and domestic animals as well as to citizens; nor even with the common protection against external enemies and security of intercourse. Such a community is an alliance and not a commonwealth, nor is it less so because the allies form a geographical unit. While it is indispensable to the existence of a political community that all these objects should be secured, yet a State, in the proper sense of the word, first arises from the effort of the citizens to realise a perfect and

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δεόμενος δι᾽ αὐτάρκειαν, οὐθὲν μέρος πόλεως, ὥστε ἢ θηρίον ἢ θεός (as he has said already at line 3 of the same page:—ὁ ἄπολις διὰ φύσιν καὶ οὐ διὰ τύχην ἤτοι φαῦλός ἐστιν ἢ κρείττων ἢ ἄνθρωπος). φύσει μὲν οὖν ἡ ὁρμὴ ἐν πᾶσιν ἐπὶ τὴν τοιαύτην κοινωνίαν· ὁ δὲ πρῶτος συστήσας μεγίστων ἀγαθῶν αἴτιος. ὥσπερ γὰρ καὶ τελεωθὲν βέλτιστον τῶν ζῴων ἄνθρωπός ἐστιν, οὕτω καὶ χωρισθὲν νόμου καὶ δίκης χείριστον πάντων. χαλεπωτάτη γὰρ ἀδικία ἔχουσα ὅπλα· ὁ δ᾽ ἄνθρωπος ὅπλα ἔχων φύεται φρονήσει καὶ ἀρετῇ, οἷς ἐπὶ τἀναντία ἔστι χρῆσθαι μάλιστα. διὸ ἀνοσιώτατον καὶ ἀγριώτατον ἄνευ ἀρετῆς . . . ἡ δὲ δικαιοσύνη πολιτικόν· ἡ γὰρ δίκη πολιτικῆς κοινωνίας τάξις ἐστίν· ἡ δὲ δίκη τοῦ δικαίου κρίσις.

self-sufficing social life.[1] The aim of the State is, in a word, the happiness of the citizens.[2] Happiness, however, consists in the unimpeded exercise of virtue.[3] The happiness of a whole people cannot differ from that of individuals. Accordingly, the highest function of the State and of statecraft is to form and educate citizens, to cherish in them all moral and spiritual fitness, and to furnish the impulse to an inherently noble and satisfying activity.[1] The qualities which make a good citizen and a brave man are thus seen to be the same: the completed virtue of a citizen is not *a* virtue, but virtue in its application to civic life.[2] Virtue, however.

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[1] *Polit.* i. 2, 1252, b, 12 : *ἡ μὲν οὖν εἰς πᾶσαν ἡμέραν συνεστηκυῖα κοινωνία κατὰ φύσιν οἶκός ἐστιν. . . . ἡ δ' ἐκ πλειόνων οἰκιῶν κοινωνία πρώτη χρήσεως ἕνεκεν μὴ ἐφημέρου κώμη. μάλιστα δὲ κατὰ φύσιν ἔοικεν ἡ κώμη ἀποικία οἰκίας εἶναι.* From the extension of the family springs the village community, which in the earliest times is ruled by the head of the family . . . *ἡ δ' ἐκ πλειόνων κωμῶν κοινωνία τέλειος πόλις, ἡ δὴ πάσης ἔχουσα πέρας τῆς αὐταρκείας ὡς ἔπος εἰπεῖν, γινομένη μὲν οὖν τοῦ ζῆν ἕνεκεν, οὖσα δὲ τοῦ εὖ ζῆν. διὸ πᾶσα πόλις φύσει ἐστὶν, εἴπερ καὶ αἱ πρῶται κοινωνίαι· τέλος γὰρ αὕτη ἐκείνων, ἡ δὲ φύσις τέλος ἐστίν.* iii. 9, 1280, a, 25 : Civil society exists not merely for the protection of property, nor yet *τοῦ ζῆν μόνον ἕνεκεν, ἀλλὰ μᾶλλον τοῦ εὖ ζῆν (καὶ γὰρ ἂν δούλων καὶ τῶν ἄλλων ζῴων ἦν πόλις· νῦν δ' οὐκ ἔστι διὰ τὸ μὴ μετέχειν εὐδαιμονίας μηδὲ τοῦ ζῆν κατὰ προαίρεσιν), μήτε συμμαχίας ἕνεκεν, ὅπως ὑπὸ μηδενὸς ἀδικῶνται, μήτε διὰ τὰς ἀλλαγὰς καὶ τὴν χρῆσιν τὴν πρὸς ἀλλήλους.* Being merely confederates, such partners are neither under any common authority *οὔτε τοῦ ποίους τινὰς εἶναι δεῖ φροντίζουσιν ἅτεροι τοὺς ἑτέρους, οὐδ' ὅπως μηδεὶς ἄδικος ἔσται τῶν ὑπὸ τὰς συνθήκας μηδ' ἄλλην μοχθηρίαν ἕξει μηδεμίαν, ἀλλὰ μόνον ὅπως μηδὲν ἀδικήσουσιν ἀλλήλους. περὶ δ' ἀρετῆς καὶ κακίας πολιτικῆς διασκοποῦσιν ὅσοι φροντίζουσιν εὐνομίας. ᾗ καὶ φανερὸν ὅτι δεῖ περὶ ἀρετῆς ἐπιμελὲς εἶναι τῇ γ' ὡς ἀληθῶς ὀνομαζομένῃ πόλει, μὴ λόγου χάριν.* Every other combination is an alliance, not a State ; every law which does not aim at making the citizens just and good is a *συνθήκη*, not a *νόμος*. Nor does it alter matters if the parties in question inhabit the same place. *φανερὸν τοίνυν, ὅτι ἡ πόλις οὐκ ἔστι κοινωνία τόπου καὶ τοῦ μὴ ἀδικεῖν σφᾶς αὐτοὺς καὶ τῆς μεταδόσεως χάριν· ἀλλὰ ταῦτα μὲν ἀναγκαῖον ὑπάρχειν, εἴπερ ἔσται πόλις, οὐ μὴν οὐδ' ὑπαρχόντων τούτων ἁπάντων ἤδη πόλις, ἀλλ' ἡ τοῦ εὖ ζῆν κοινωνία καὶ ταῖς οἰκίαις, καὶ τοῖς γένεσι, ζωῆς τελείας χάριν καὶ αὐτάρκους.*

[2] *Polit.* iii. 9, 1280, b, 39 : *τέλος μὲν οὖν πόλεως τὸ εὖ ζῆν . . . πόλις δὲ ἡ γενῶν καὶ κωμῶν κοινωνία ζωῆς τελείας καὶ αὐτάρκους. τοῦτο δ' ἐστὶν, ὡς φαμὲν, τὸ ζῆν εὐδαιμόνως καὶ καλῶς. τῶν καλῶν ἄρα πράξεων χάριν θετέον εἶναι τὴν πολιτικὴν κοινωνίαν, ἀλλ' οὐ τοῦ συζῆν.* vii. 8, 1328, a, 35 : *ἡ δὲ πόλις κοινωνία τίς ἐστι τῶν ὁμοίων, ἕνεκεν δὲ ζωῆς τῆς ἐνδεχομένης ἀρίστης. ἐπεὶ δ' ἐστὶν εὐδαιμονία τὸ ἄριστον, αὕτη δὲ ἀρετῆς ἐνέργεια καὶ χρῆσίς τις τέλειος* &c.

[3] See p. 137 sqq. *supra.*

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[1] See p. 208, n. 1, *supra*; *Eth.* i. 13, 1102, a, 7, ii. 1, 1103, b, 3; *Polit.* vii. 2 *init.*, c. 15 *init.*

[2] *Polit.* iii. 4: Is the virtue of the **ἀνὴρ ἀγαθὸς** identical with that of the **πολίτης σπουδαῖος** or not? Absolutely identical they certainly are not (as has already been remarked, *Eth.* v. 5, 1130, b, 28), for not only does each different form of State make peculiar demands upon its members (civil virtue, therefore, will have a different character under different forms of constitution), but the State itself consists of heterogeneous elements, and not merely of men of mature virtue. In so far, on the other hand, as the State may be regarded as a free community, as being the government of freemen and equals (**πολιτικὴ ἀρχὴ, ἀρχὴ τῶν ὁμοίων καὶ ἐλευθέρων**, 1277, b, 7 sqq.), they coincide, for no one is qualified to be a member of such a State who does not know both how to command and how to obey—in other words, who is not an **ἀνὴρ ἀγαθός**. Hence, c. 18, 1288, a, 37, with reference to c. 4: **ἐν δὲ τοῖς πρώτοις ἐδείχθη λόγοις ὅτι τὴν αὐτὴν ἀναγκαῖον ἀνδρὸς ἀρετὴν εἶναι καὶ πολίτου τῆς πόλεως τῆς ἀρίστης.** vii. 1, 1323, b, 33: **ἀνδρία δὲ πόλεως καὶ δικαιοσύνη καὶ φρόνησις τὴν αὐτὴν ἔχει δύναμιν καὶ μορφὴν, ὧν μετασχὼν ἕκαστος τῶν ἀνθρώπων λέγεται δίκαιος καὶ φρόνιμος καὶ σώφρων.** c. 9, 1328, b, 37: **ἐν τῇ κάλλιστα πολιτευομένῃ πόλει καὶ τῇ κεκτημένῃ δικαίους ἄνδρας ἁπλῶς, ἀλλὰ μὴ πρὸς τὴν ὑπόθεσιν** (in reference to a given State; the **πρὸς τὴν ὑπόθεσιν δίκαιος** is he who, while he sides with existing laws and institutions, defends even what is severe and unjust in them). c. 13, 1332, a, 36: **καὶ γὰρ εἰ πάντας ἐνδέχεται σπουδαίους εἶναι, μὴ καθ' ἕκαστον δὲ τῶν πολιτῶν** [even although it be possible for the community as a whole to be excellent while each of the individuals is not, the imperfections of the members being compensated for by the perfection of the whole; we shall have to allude to this further on in referring to *Polit.* iii. 11, 13, 15], **οὕτως αἱρετώτερον** [yet the latter, viz. that all the individuals should be virtuous, is the more desirable]; **ἀκολουθεῖ γὰρ τῷ καθ' ἕκαστον καὶ τὸ πάντας.** c. 14, 1332, a, 11: As the virtue of the **ἄρχων** and the best man is one and the same, but in the best State all are fitted to govern, the legislation must aim at making all the citizens in it good men. c. 15 *init.*: **ἐπεὶ δὲ . . . τὸν αὐτὸν ὅρον ἀναγκαῖον εἶναι τῷ τε ἀρίστῳ ἀνδρὶ καὶ τῇ ἀρίστῃ πολιτείᾳ.** According to these explanations, the words (iii. 4, 1277, a, 4) **εἰ μὴ πάντας ἀναγκαῖον ἀγαθοὺς εἶναι τοὺς**

is twofold—theoretic and practical. To ask which of these is superior is equivalent here to asking whether peace or war is to be the ultimate aim of civil life; since the proper occupation for times of peace is, according Aristotle, Science, whereas in war the main object is the acquisition of the greatest possible power of action.[1] But we have already seen that Aristotle places the theoretic life much higher than the practical, and accordingly we are not surprised to find him sharply criticising those constitutions which, like the Spartan and the Cretan, are adapted rather for war than for peace. Such States, he says, have only conquests in view, as if every kind of dominion over others, upon whomsoever it may be forced and by whatsoever means achieved, were permissible; and on this account they nourish in individuals the spirit of violence and ambition, and estrange them from the arts of peace, and so when their dominion is secured and the martial activity should give place to the peaceful, such States forthwith fall into decay. Aristotle himself regards the peaceful occupations as the true object of social life; war he permits only as a means to peace, only, therefore, in so far

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ἐν τῇ σπουδαίᾳ πόλει πολίτας, occurring, moreover, as they do in a dialectical discussion (an *ἀπορία*), are not to be understood as though Aristotle himself intended to deny that necessity. He means them merely as a preliminary affirmation of the condition under which alone civil and individual virtue absolutely coincide. Whether and under what circumstances this condition is present, is the subject of the discussion that follows.

[1] This parallel, however, is only partially relevant. Aristotle tells us himself (*Polit.* vii. 15, 1334, a, 22 sqq.) that even moral virtues, such as justice and self-command, are especially indispensable in time of peace. Moreover, while scientific activity certainly needs peace most, yet it can only at best be practised by a small minority of the citizens.

as it is necessary for self-defence or for the subjugation of those whom Nature has destined to serve. He demands, accordingly, that besides bravery and constancy, which are necessary in order that the State may assert its independence, the virtues of peace—namely, justice, temperance, and scientific culture (*φιλοσοφία*)—should also be cultivated.[1] It cannot be denied that the aim of the State is thus placed sufficiently high. It is not, indeed, to Aristotle the absolutely highest, as it was to the Greeks of an earlier age. To him as to his teacher the highest is that scientific activity which in itself can dispense with the society of others. This alone it is in which man attains the highest perfection permitted him by his nature, in which he transcends the limits of humanity and lives the life of God. Only as man does he require practical virtue and the community in which it manifests itself.[2] As man, however, these are wholly indispensable to him. But the highest form of community, embracing and completing every other, is the State. Its aim comprehends every other moral aim, while its institutions not only give security and stability to the moral life by means of law and education, but extend it over a whole people. We thus arrive at a definition of the highest function of the State as that of making the citizens happy by means of virtue. This is essentially the same view of civil life that we have already met with in Plato. In only a single feature do the two philosophers differ from one another, but it is a fundamental one. In Plato the State, like everything else upon earth, is essentially related to the other world, whence all truth and reality spring. This is the ultimate source of his political idealism. Just as the Ideas belong to that supersensible world, so the philosophical rulers to whom he entrusts the realisation of these Ideas in the State have their home there also, and only unwillingly descend to take part in earthly affairs. The State, therefore, serves not only for moral education, but also as a preparation for that higher life of the disembodied spirit into which a beautiful glimpse is opened to us at the end of the *Republic*. Of this view of the State and of human life in general, we find no trace in Aristotle. We have simply and solely here to do with the present life and with that happiness which is the immediate outcome of moral and spiritual perfection. It is not the aim of the State to represent an ideal world beyond or to prepare for another life, but to satisfy the wants of the present. And just as he does not require philosophy to be the ruling principle in politics, as we shall see immediately, so, on the other hand, he sees no opposition between these two, such as might make the political activity of the philosopher appear as a painful sacrifice. He holds that human nature has two equally essential sides which find their satisfaction in the practical activity of the statesman and the theoretic activity of the philosopher respectively. None but God can live in contemplation alone. Man as man cannot renounce practical life in a community. It is no mere compulsion, but a moral need, which makes the State and the life which it offers a necessity for him.

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[1] *Polit.* vii. 2, 3, c. 14, 15; *Eth.* x. 7, 1177, b, 4. Cf. also p. 143, n. 1, and on war for the acquisition of slaves, *Polit.* i. 8, 1256, b, 23.

[2] Cf. the citations from *Eth.* x. 8, and other passages, p. 143, n. 1.

It is the aim of the *Politics* to investigate the means by which the State fulfils its functions, the various more or less perfect conceptions of the nature of these functions, and the institutions that correspond to them. But before applying himself to this investigation, Aristotle in the first book of his political treatise discusses the Family and the Household; for he holds that in order perfectly to understand the nature of the State, it is necessary to analyse it into its simplest constituents.[1]

2. *The Household as a Constituent Element of the State*

The State is the most perfect form of human society, and as such is prior to every other in order of thought. But just as elsewhere in Aristotle that which is first in essence is last in origin, the primordial principle the last result, so the first natural form of society—namely, the Family—precedes the political as the condition of its origin in time.[2]

The family is constituted by means of the three relations of husband and wife, parents and children, master and servant.[3]

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[1] *Polit.* i. 1, 1252, a, 17 (after touching upon the distinction between political and household economy): δῆλον δ' ἔσται τὸ λεγόμενον ἐπισκοποῦσι κατὰ τὴν ὑφηγημένην μέθοδον [by which he means not so much his method, as the plan which he intends to follow in the investigation, and which he had indicated at the end of the *Ethics*]. ὥσπερ γὰρ ἐν τοῖς ἄλλοις τὸ σύνθετον μέχρι τῶν ἀσυνθέτων ἀνάγκη διαιρεῖν (ταῦτα γὰρ ἐλάχιστα μόρια τοῦ παντὸς), οὕτω καὶ πόλιν ἐξ ὧν σύγκειται σκοποῦντες ὀψόμεθα καὶ περὶ τούτων μᾶλλον, τί τε διαφέρουσιν ἀλλήλων καὶ εἴ τι τεχνικὸν ἐνδέχεται λαβεῖν περὶ ἕκαστον τῶν ῥηθεντων. Cf. c. 3 *init.*

[2] *Polit.* i. 2.

[3] *Ibid.* c. 2, c. 3, c. 12 *init.* Aristotle describes, in c. 2, the relations of man and wife, slave and freeman, as the two fundamental ones. He begins with the discussion of the latter, c. 3 sqq., and connects with it that of the

The relation of husband and wife Aristotle treats as an essentially moral one. A natural instinct forms, indeed, its basis, but the union must assume the higher forms of friendship, good will, and mutual service.[1] The reason of this is that the moral capacities of each are partly similar and partly different, and that therefore a free relation between them is not only possible, but is demanded by the need of both to find their complement. They stand, in one sense, upon equal terms. The wife as well as the husband has a will of her own and a virtue proper to herself. She, too, must be treated as a free person. Where the women are slaves, this is a proof to Aristotle that the men also are slaves by nature, since a free man can unite himself only with a free woman.[2] On the other hand, it is also true that the moral capacities of the woman differ in kind and in degree from those of the man: her will is weak (*ἄκυρος*), her virtue less perfect and self-sufficient, her vocation, as a whole, is not independent production but quiet retirement and domesticity.[3] The true relation, accordingly,

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different kinds of property—reserving the two remaining relations, c. 13, 1260, b, 8, for subsequent treatment, on the ground that the education of women and children and all household arrangements must depend upon the character and aim of the State. The discussion of these, however, is not resumed in the *Politics* as we have it, what is said in lib. vii. and viii. on education being without special reference to family life. For the purpose of exposition, it is best to take the order which is more natural to us, *i.e.* to discuss the family *before* slavery and property.

[1] *Polit.* i. 2 *init.*; *Eth.* viii. 14, 1162, a, 16 sqq.; cf. *Œc.* i. 3 sq.

[2] *Polit.* i. 2, 1252, a, 1 sqq. c. 13, 1260, a, 12 sqq.; *Eth. ibid.*

[3] *Polit.* i. 5, 1254, b, 13, c. 13, 1260, a, 12, 20 sqq. iii. 4, 1277, b, 20 sqq.; *Œc.* i. 3, *ad fin.*; cf. *Hist. An.* ix. 1, where differences of character and disposition are discussed in so far as they proceed from difference of sex. See esp. 608, a, 35: *τὰ θήλεα μαλακώτερα καὶ κακουργότερα καὶ ἧττον*

of woman to man can only exist where the man, as the superior, bears rule, while the woman is treated as a free partner in the household, and as such is not only protected from every kind of injustice, but also has her own proper sphere, with which the man does not interfere. It is an association of free members with unequal rights—in other words, it is, as Aristotle frequently describes it, an aristocracy.[1]

Less free is the relation between Parent and Child, in discussing which, however, Aristotle confines himself characteristically enough almost solely to the relation between father and son.[2] In spite of the advanced views just quoted, mother and daughter have no further attention paid to them. As Aristotle had compared the married relation to an aristocracy, he compares that of father and son to a monarchy.[3] The child has, strictly speaking, no rights as against his

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ἁπλᾶ καὶ προπετέστερα καὶ περὶ τὴν τῶν τέκνων τροφὴν φροντιστικώτερα, τὰ δ' ὄρρενα ἐναντίως θυμωδέστερα, καὶ ἀγριώτερα καὶ ἁπλούστερα καὶ ἧττον ἐπίβουλα . . . γυνὴ ἀνδρὸς ἐλεημονέστερον καὶ ἀρίδακρυ μᾶλλον, ἔτι δὲ φθονερώτερον καὶ μεμψιμοιρότερον, καὶ φιλολοίδορον μᾶλλον καὶ πληκτικώτερον. ἔστι δὲ καὶ δύσθυμον μᾶλλον τὸ θῆλυ τοῦ ἄρρενος καὶ δύσελπι, καὶ ἀναιδέστερον καὶ ψευδέστερον, εὐαπατητότερον δὲ καὶ μνημονικώτερον, ἔτι δὲ ἀγρυπνότερον καὶ ὀκνηρότερον καὶ ὅλως ἀκινητότερον τὸ θῆλυ τοῦ ἄρρενος, καὶ τροφῆς ἐλάττονός ἐστιν. βοηθητικώτερον δὲ, ὥσπερ ἐλέχθη, καὶ ἀνδρειότερον τὸ ἄρρεν τοῦ θήλεός ἐστιν. We may contrast the careful observation upon which this comparison is based with the levity with which Plato (*Rep.* v. 452 E sqq.; cf. *Ph. d. Gr.* i. p. 775) denies that there is any inherent difference between the sexes beyond that of their natural functions.

[1] *Eth. N.* viii. 12, 1160, b, 32 sqq. c. 13, 1161, a, 22; cf. v. 10, 1134, b, 15; *Eud.* vii. 9, 1241, b, 29; *Polit.* i. 13, 1260, a, 9; *Œc.* i. 4, where details and practical directions are given upon this head. Cf. further, p. 222 sq. *infra*.

[2] Such passages as *Eth.* viii. 14, 1161, b, 26, ix. 7, 1168, a, 24, can hardly be regarded as relevant.

[3] *Eth. N.* viii. 12, 1160, b, 26, c. 13 *init.* (*Eud.* vii. 9, 1241, b, 28.)

father, being still only a part of his parent,[1] but the father has a duty to his child—the duty, namely, of providing for its highest interests.[2] The reason of this is that the child has a will and a virtue of its own, although both are imperfect. They are both perfect in his father, and we may therefore describe the right relation between father and son as one in which the former imparts his more perfect virtue to the latter, while the son by his obedience appropriates the virtue of his father.[3]

The position, lastly, of the Slave is one of complete dependence. To the institution of slavery Aristotle has devoted special attention, partly with the view of investigating its necessity and justice, and partly of laying down the proper method of treating slaves. That slavery is, in the first place, a necessity, follows, according to Aristotle, from the very nature of the household, whose requirements demand not only lifeless but also living and rational utensils. But utensils are the property of him who uses them. Hence to complete the accommodations of the household, human beings are required who shall be the property of their master[1]—in other words, slaves.[2] That, in the second place, slavery is just, that it rests not upon legal enactments merely, as some even then affirmed,[3] but also upon the laws of nature, Aristotle tries to prove from the difference in the natural condition of men. Those who are by nature fitted only for physical employments justly come under the power of those who are capable of intellectual activity, since these are their superiors, just as the gods are the superiors of men or men of the beasts, and since generally the intellect must rule the body.[4] Aristotle even goes the length of affirming that nature has willed a physical distinction between them, and that it is only a *lusus naturæ* when the soul of a freeman finds its way into the body of a slave.[5] And since this in general is actually the relation of Barbarians to Greeks, the former are held to be the natural slaves of the latter.[6] Aristotle therefore regards not only slavery itself as justifiable, but also war for the acquisition of slaves,[1] provided only the slavery be strictly limited to those who are by nature destined to it. It is unjust only when it is inflicted on those whom nature has destined to rule. The practice, accordingly, of treating prisoners of war indiscriminately as slaves, is condemned by Aristotle on the ground that captivity may overtake even the best and those who have been unjustly attacked.[2] The nature of the relation of master and slave must of course be ruled by these principles. A wife has a weak will and a boy an imperfect one, but a slave has none at all. His will resides in his master; obedience and usefulness in service are the only virtues which he is capable of exercising.[3] That the slave, being a man, must also possess a virtue proper to him as man is, indeed, admitted by Aristotle, but he immediately adds that the slave can only possess a minimum of this virtue.[4] Similarly he recommends a mild and humane treatment of slaves. He makes it the duty of the master to

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[1] *Ibid.* v. 10, 1134, b, 8; cf. viii. 16, 1163, b, 18.

[2] *Polit.* iii. 6, 1278, b, 37.

[3] *Polit.* i. 13, 1260, a, 12, 31; cf. iii. 5, 1278, a, 4. A complete discussion of the family would include that of the fraternal bond, but upon this Aristotle does not enter in the *Politics*; only in the *Ethics* does he touch upon the relation existing between brothers, in treating of friendship. He remarks that brotherly love rests partly upon common parentage, which of itself constitutes a bond of union, and partly upon community of life and education; and that friendship between brothers resembles that between those of the same age. &c. He compares their relationship to a timocracy in so far as the parties in it are naturally upon an equality, and difference in age is the only ground of superiority; and ends by tracing the bond of connection between more distant relatives in a similar analysis; viii. 12–14, 1161, a, 3, 25, b, 30 sqq. 1162, a, 9 sqq.

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[1] *Polit.* i. 4; *Œc.* i. 5 *init.*

[2] A slave being (*Polit.* i. 4 *fin.*) *ὃς ἂν κτῆμα ᾖ ἄνθρωπος ὢν* (*κτῆμα δὲ ὄργανον πρακτικὸν* [see *ibid.* 1254, a, 1 sqq.] *καὶ χωριστόν*), a *φύσει δοῦλος* is *ὁ μὴ αὑτοῦ φύσει ἀλλ' ἄλλου, ἄνθρωπος δέ.*

[3] *Polit.* i. 3, 1253, b, 18 sqq. c. 6, 1255, a, 7; cf. *Ph. d. Gr.* i. 1007, 2, 4th edit.; ONCKEN, *Staatsl. d. Arist.* ii. 32 sq.

[4] *Ibid.* c. 5, 1254, b, 16, 34, vii. 3, 1325, a, 28. Plato had already expressed this idea; cf. *Ph. d. Gr.* i. 755, 2.

[5] *Polit.* i. 5, 1254, b, 27, where he adds: if one portion of the human race were physically as superior to the rest as the gods are represented to be, no one would refuse them unconditional submission. The remark is characteristic of a Greek. As in his view the spiritual character naturally and necessarily expresses itself in a harmonious external form, he finds in the acknowledged beauty of his own race a direct proof of its absolute superiority to barbarian peoples. How much more from this point of view would the slavery of black and coloured races have seemed to him to be justified.

[6] *Polit.* i. 2, 1252, b, 5, c. 6, 1255, a, 28; cf. vii. 7. Aristotle certainly admits exceptions to this assertion; Nature, he remarks, i. 6, 1255, b, 1, intends, indeed, that just as man springs

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from man, and beast from beast, so the good should spring from the good, but she does not always succeed in this. He continues: *ὅτι μὲν οὖν ἔχει τινὰ λόγον ἡ ἀμφισβήτησις* [the doubt about the lawfulness of slavery] *καὶ οὐκ εἰσὶν οἱ μὲν φύσει δοῦλοι οἱ δ' ἐλεύθεροι δῆλον.* This can only mean that all slaves or freemen are not so by nature, for he immediately adds: *καὶ ὅτι ἐν τισὶ διώρισται τὸ τοιοῦτον, ὧν συμφέρει τῷ μὲν τὸ δουλεύειν τῷ δὲ τὸ δεσπόζειν καὶ δίκαιον.* There must thus nevertheless be tribes born to be slaves, as is presupposed c. 2, *ibid.*, and must be assumed if war for the capture of slaves is to be justified. THUROT, *Etudes s. Arist.* 10, proposes instead of '*οὐκ εἰσὶν οἱ μὲν,*' '*οὐκ εἰσὶν εἰ μὴ,*' which, however, would yield the awkward meaning that all slaves are so by nature.

[1] *Polit.* i. 8, 1256, b. 23 sqq.

[2] *Ibid.* c. 6, 1255, a, 21 sqq.

[3] *Polit.* i. 13, 1259, a, 21 sqq. 1260, a, 12–24, 33; *Poet.* 15, 1454, a, 20.

[4] *Polit. ibid.*

educate them in the virtue that is possible to them;[1] he commends the practice of promising them freedom as the reward of good conduct.[2] And yet he holds that the power of the master as a whole is despotic, and that love on his part towards a slave is as impossible as love of the gods towards man.[3] That Aristotle holds this to be true of the slave *qua* slave and not *qua* man,[4] we can only regard as an inconsistency which does him honour. Greek morals and Greek ways of thought were too powerful within him to permit him to draw the more logical inference[5] that man *qua* man cannot be a slave.

To the investigation of slavery, Aristotle appends more general discussions upon property and modes of acquisition[1] somewhat loosely, with the remark that slaves being a part of a man's property, the subject of property here finds a natural place.[2] He distinguishes two kinds of production: 'natural,' and 'artificial.'[3] The former embraces all those modes of activity by which the necessities of life are obtained—the rearing of cattle, hunting, agriculture, &c.[4] From the barter of the products of these arises, in the first place, exchange, which is likewise regarded as a natural mode of production, since it immediately serves the satisfaction of natural wants.[5] But the introduction, for the sake of commerce, of money as the universal standard of value[1] was followed by the development of artificial production, which has in view, not the requirements of life, but the possession of money.[2] Only the former of these kinds of production is an indispensable part of domestic economy.[3] It has to do with *real* wealth, which may be defined as the stock of household necessaries, and for this reason it is strictly limited by household needs.[4] Money-getting, on the other hand, is wholly unlimited, herein showing itself to be naturally bad and opposed to the true art of life, inasmuch as it serves, not to purify and exalt it, but only to provide the means of material existence and enjoyment.[5] Production as a whole is, accordingly, held by Aristotle in small esteem, and the more so, the more exclusively it is occupied with mere money-making business, since of all unnatural modes of production he believes money-lending to be the most unnatural of all.[6] He confines himself, accordingly, in what remains of this discussion, to a divi-

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[1] *Polit.* i. 7, c. 13, 1260, b, 3: *φανερὸν τοίνυν ὅτι τῆς τοιαύτης ἀρετῆς αἴτιον εἶναι δεῖ τῷ δούλῳ τὸν δεσπότην . . διὸ λέγουσιν οὐ καλῶς οἱ λόγου τοὺς δούλους ἀποστεροῦντες καὶ φάσκοντες ἐπιτάξει χρῆσθαι μόνον· νουθετητέον γὰρ μᾶλλον τοὺς δούλους ἢ τοὺς παῖδας.* On the treatment of slaves see further in *Œc.* i. 5.

[2] *Polit.* vii. 10 *fin.*, upon which HILDENBRAND. *Rechts- u. Staatsphil.* i. 400, pertinently remarks that this is inconsistent with Aristotle's principles: for he whom nature condemns to slavery ought not to be set free; he whom nature has not so condemned ought not to be held in slavery.

[3] *Eth.* viii. 12, 1160, b, 29, c. 13, 1160. a, 30 sqq.; cf. viii. 9 (see i. 3.8. n. 1, *supra*).

[4] *Eth.* viii. 13 *fin.*

[5] As RITTER (iii. 361) showed it to be, and as it continues to be, in spite of FECHNER'S objection (*Gerechtigkeitsbegr. d. Arist.* p. 119) that according to Aristotle there are differences even within the sphere of human reason. Aristotle certainly assumes such differences and even asserts, as we have just seen, that they go so deep as to render a portion of mankind incapable of freedom. But the real question is whether this assertion still holds true if we are at the same time compelled to admit that even one who belongs to this portion of mankind is *δυνάμενος κοινωνῆσαι νόμου καὶ συνθήκης, καὶ φιλίας δή, καθ' ὅσον ἄνθρωπος*, and that there is a *δίκαιον παντὶ ἀνθρώπῳ πρὸς πάντα.* To a thing, a possession, no rights can belong. To a man who has no will and either no virtue at all or only that of a slave friendship, on Aristotle's principles, is impossible.

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[1] *Polit.* i. 8–11, cf. *Œc.* i. 6.

[2] See *Polit.* i. 8. Slaves had been previously described (c. 4 *init.*) as a part of *κτῆσις*, and *κτητικὴ* as a part of *οἰκονομία*; nevertheless one cannot accept TEICHMÜLLER'S statement (p. 338 of the treatise cited 137, n. 2, *sup.*) that this section is here quite in place. For in c. 3 only the three relations of master and slave, husband and wife, father and children were adduced as the proper subjects of economics, and in 1253, b, 12, the theory of property is only touched upon in a few words: *ἔστι δέ τι μέρος* [? now also rejected by SUSEMIHL] *ὃ δοκεῖ τοῖς μὲν εἶναι οἰκονομία, τοῖς δὲ μέγιστον μέρος αὐτῆς*, viz. *χρηματιστική*, which is thus here regarded as merely supplementary to the study of economics. TEICHMÜLLER suggests that the remark in the text upon the way in which the theory of production is connected with the discussion of slavery, only betrays a confusion with regard to the meaning of external goods in Aristotle: but his ingenuity has here discovered a connection which is not to be found in Aristotle, and has no existence but in the commentator's own mind.

[3] c. 8 *fin.*: *ὅτι μὲν τοίνυν ἔστι τις κτητικὴ κατὰ φύσιν τοῖς οἰκονόμοις καὶ τοῖς πολιτικοῖς, καὶ δι' ἣν αἰτίαν, δῆλον.* c. 9 *init.*: *ἔστι δὲ γένος ἄλλο κτητικῆς, ἣν μάλιστα καλοῦσι καὶ δίκαιον αὐτὸ καλεῖν χρηματιστικήν . . . . ἔστι δ' ἡ μὲν φύσει ἡ δ' οὐ φύσει αὐτῶν, ἀλλὰ δ' ἐμπειρίας τινὸς καὶ τέχνης γίνεται μᾶλλον.*

[4] After enumerating the various kinds of natural production, and among them, strangely enough (1256, a, 36, b, 5), *λῃστεία*, which is neither natural to a moral being nor a productive activity at all, he says of them (1256, b, 26): *ἓν μὲν οὖν εἶδος κτητικῆς κατὰ φύσιν τῆς οἰκονομικῆς μέρος ἐστὶν . . . . ὧν* [a 'constructio ad sensum,' referring to the different activities comprehended under this class] *ἐστὶ θησαυρισμὸς χρημάτων πρὸς ζωὴν ἀναγκαίων καὶ χρησίμων εἰς κοινωνίαν πόλεως ἢ οἰκίας.*

[5] c. 9, 1257, a, 28, after the

account of barter: *ἡ μὲν οὖν τοιαύτη μεταβλητικὴ οὔτε παρὰ φύσιν οὔτε χρηματιστικῆς ἐστὶν εἶδος οὐδέν· εἰς ἀναπλήρωσιν γὰρ τῆς κατὰ φύσιν αὐταρκείας ἦν.*

[1] See p. 173, *supra.*

[2] c. 9, 1257, a, 30 sqq.

[3] c. 9 *fin.*: *περὶ μὲν οὖν τῆς τε μὴ ἀναγκαίας χρηματιστικῆς . . . εἴρηται· καὶ περὶ τῆς ἀναγκαίας, ὅτι ἑτέρα μὲν αὐτῆς οἰκονομικὴ δὲ κατὰ φύσιν ἡ περὶ τὴν τροφήν.*

[4] c. 8, 1256, b, 30 (following the passage cited p. 220, n. 4, *sup.*): *καὶ ἔοικεν ὅ γ' ἀληθινὸς πλοῦτος ἐκ τούτων εἶναι. ἡ γὰρ τῆς τοιαύτης κτήσεως αὐτάρκεια πρὸς ἀγαθὴν ζωὴν οὐκ ἄπειρός ἐστιν . . . . οὐδὲν γὰρ ὄργανον ἄπειρον οὐδεμιᾶς ἐστὶ τέχνης οὔτε πλήθει οὔτε μεγέθει, ὁ δὲ πλοῦτος ὀργάνων πλῆθός ἐστιν οἰκονομικῶν καὶ πολιτικῶν.*

[5] c. 9, 1257, b. 28–1258, a, 14.

[6] c. 10, 1258, a, 40: *τῆς δὲ μεταβλητικῆς ψεγομένης δικαίως (οὐ γὰρ κατὰ φύσιν ἀλλ' ἀπ' ἀλλήλων ἐστὶν), εὐλογώτατα μισεῖται ἡ ὀβολοστατικὴ διὰ τὸ ἀπ' αὐτοῦ τοῦ νομίσματος εἶναι τὴν κτῆσιν καὶ οὐκ ἐφ' ὅπερ ἐπορίσθη* [not from the proper use of gold]. *μεταβολῆς γὰρ ἐγένετο χάριν, ὁ δὲ τόκος αὐτὸ ποιεῖ πλέον . . . ὥστε καὶ μάλιστα παρὰ φύσιν οὗτος τῶν χρηματισμῶν ἐστίν*

sion of it into its various kinds,[1] and to a few remarks upon the art of obtaining a monopoly of a commodity.[2] He places, however, a different estimate upon the scientific treatment of these matters and upon the conduct of them in actual practice.[3] Sharing as he does to the fullest extent the Greek contempt for manual labour,[4] he naturally assigns to the latter a lower place in proportion as it makes less claim upon the moral and intellectual qualities, consists more exclusively of physical occupations, and stamps the body more deeply with the marks of toil.[5]

Plato had demanded in his *Republic* that the family and household should be absorbed in the State. A community of wives, children, and goods had appeared to him to be the arrangement which was most desirable and alone suited to the perfect State. Aristotle rejects this view.[6] Plato desired that all things should be held in common in order that the State might be the most perfect unity possible. But a State is not merely a unity; it is a whole composed of many and various parts. If perfect unity without multiplicity were the highest, then must the State shrink into the Household, and the Household into the Individual.[1] But even if we granted that unity is the best thing for a State, yet the arrangements which Plato proposes would not, he thinks, be the proper means for its attainment. Not to speak of the difficulties which such proposals would involve in their application,[2] Plato had said[3] that the unity of the State will be the most complete when all call the same thing *mine* and *thine*. But this assertion, as Aristotle acutely remarks, is ambiguous. If all could treat the same things as their own private property, unity might perhaps be thus promoted. That however, is not possible. If, on the other hand, children and goods are to be the common property of all, the desired result will not follow.[4] On the contrary, with the exclusiveness of these relationships, all their worth and all that gives them real significance would be destroyed: one who had the thousandth part of a claim upon each of a thousand sons, and was not even quite sure of that, would not

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[1] He enumerates in c. 11 three kinds of *χρηματιστικὴ*: (1) agriculture, cattle-rearing, &c.—*οἰκειοτάτη χρηματιστική*; (2) *μεταβλητικὴ*, with its three branches, *ἐμπορία, τοκισμὸς, μισθαρνία*, the last of which includes all mechanical industries; (3) occupying an intermediate position — *ὑλοτομία, μεταλλουργία*, &c.

[2] He desires that a collection of these and similar artifices should be made (1259, a, 3), such as is actually attempted afterwards in the second book of the *Economics*. He adduces himself only two examples. As a rule, he refers to earlier writers upon husbandry, &c. (1258, b, 59). He will not himself linger over such subjects, as it is *χρήσιμον μὲν πρὸς τὰς ἐργασίας, φορτικὸν δὲ τὸ ἐνδιατρίβειν.*

[3] c. 11 *init*: *πάντα δὲ τὰ τοιαῦτα τὴν μὲν θεωρίαν ἐλεύθερον ἔχει, τὴν δ' ἐμπειρίαν ἀναγκαίαν.*

[4] Further proofs of this will meet us in the section upon the constitution of the State.

[5] *Ibid.* 1258, b, 35: *εἰσὶ δὲ τεχνικώταται μὲν τῶν ἐργασιῶν ὅπου ἐλάχιστον τῆς τύχης, βαναυσόταται δ' ἐν αἷς τὰ σώματα λωβῶνται μάλιστα, δουλικώταται δὲ ὅπου τοῦ σώματος πλεῖσται χρήσεις, ἀγεννέσταται δὲ ὅπου ἐλάχιστον προσδεῖ ἀρετῆς.* With the definition of *τὸ βάναυσον* cf. c 5, 1254, b, 24 sqq. PLATO, *Rep.* vi. 495 D (*Ph. d. Gr.* i. 754, 3).

[6] He expresses his views on

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this subject, not in the first book, which treats of the family, but in the second, which treats of earlier ideal States. This discussion is, however, mentioned here out of its order for convenience of exposition.

[1] *Polit.* ii. 2, 1261, a, 9 sqq. (cf. c. 5, 1263, b, 29 sqq.) where, *inter alia*, he says: καίτοι φανερόν ἐστιν ὡς προϊοῦσα καὶ γινομένη μία μᾶλλον οὐδὲ πόλις ἔσται· πλῆθος γάρ τι τὴν φύσιν ἐστὶν ἡ πόλις . . . οὐ μόνον δ' ἐκ πλειόνων ἀνθρώπων ἐστὶν ἡ πόλις, ἀλλὰ καὶ ἐξ εἴδει διαφερόντων· οὐ γὰρ γίνεται πόλις ἐξ ὁμοίων. This is the basis, moreover, of the self-sufficiency of the State; *ibid.* b, 10 sqq.

[2] For a fuller discussion of which, see c. 3 sq. 1262, a, 14–40, b, 24 sqq.

[3] *Rep.* v. 462 C.

[2] c. 3, 1261, b, 16–32.

feel as a father towards any one.[1] The same is true of property. Here, also, so far from leading to unity, community of possession would be an inexhaustible source of strife.[2] What is required is the just distribution of property and the voluntary surrender of it to a common use.[3] Community of goods, on the other hand, along with the desire of private possession, destroys also the joy of benevolence and generosity; and just as community of women annihilates the virtue of temperance in the relations of the sexes, so community of goods renders impossible that virtue[4] which consists in the right attitude towards property.[5] In this opposition to the Platonic socialism we shall not only recognise Aristotle's practical sense, his clear insight into the laws and conditions of actual life, his aversion to all ethical onesidedness and his deep knowledge of human nature and of social life, but we shall not fail to observe that here, as in Plato, the political views are closely connected with the principles of the metaphysical system. Plato had demanded the abolition of all private possession and the suppression of all individual interests, because it is only in the Idea or Universal that he acknowledges any title to true reality.[6] Aristotle refuses to follow him here. To him the Individual is the primary reality, and has the first claim to recognition. In his metaphysics individual things are regarded, not as the mere shadows of the idea, but as independent realities; universal conceptions not as independent substances, but as the expression for the common peculiarity of a number of individuals. Similarly in his moral philosophy he transfers the ultimate end of human action and social institutions from the State to the individual, and looks for its attainment in his free self-development. The highest aim of the State consists in the happiness of its citizens. The good of the whole rests upon the good of the individuals who compose it.[1] In like manner must the action by which it is to be attained proceed from the individual of his own free will. It is only from within through culture and education, and not by compulsory institutions, that the unity of the State can be secured.[2] In politics as in metaphysics the central point with Plato is the Universal, with Aristotle the Individual. The former demands that the whole should realise its ends without regard to the interests of individuals: the latter that it be reared upon the satisfaction of all individual interests that have a true title to be regarded.

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[1] *Ibid.* 1261, b, 32 sqq. c. 4, 1262, a, 40 sqq.

[2] c. 5, 1262, b, 37–1263, a, 27.

[3] *Ibid.* 1263, a, 21–40, where *fin.*: *φανερὸν τοίνυν ὅτι βέλτιον εἶναι μὲν ἰδίας τὰς κτήσεις τῇ δὲ χρήσει ποιεῖν κοινάς.* This is repeated vii. 10, 1329, b, 41.

[4] *i.e.*, *ἐλευθεριότης*, as to which, see *supra*.

[5] *Ibid.* 1263, a, 40–b, 14. The reproach with regard to *σωφροσύνη* is certainly unjust, for according to Plato, each has to refrain from all women who are not assigned to him by the government. The Platonic community of women is certainly not meant to be licence of desire (see the further discussion of this in ZELLER'S *Vortr. u. Abh.* i. 76).

[6] See *Ph. d. Gr.* i. p. 780.

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[1] Plato had met the objection (*Rep.* iv. 420 B sqq.) that he had failed to make his 'guardians' happy, with the remark that the question is of the happiness, not of a part, but of the whole; Aristotle replies (*Polit.* ii. 5, 1264, b, 17): ἀδύνατον δὲ εὐδαιμονεῖν ὅλην, μὴ τῶν πλείστων ἢ μὴ [we should omit this μὴ, or read εἰ μὴ instead of ἢ μὴ] πάντων μερῶν ἢ τινῶν ἐχόντων τὴν εὐδαιμονίαν. [Similarly, vii. 9, 1329, a, 23. εὐδαίμονα δὲ πόλιν οὐκ εἰς μέρος τι βλέψαντας δεῖ λέγειν αὐτῆς, ἀλλ' εἰς πάντας τοὺς πολίτας.] οὐ γὰρ τῶν αὐτῶν τὸ εὐδαιμονεῖν ὧνπερ τὸ ἄρτιον· τοῦτο γὰρ ἐνδέχεται τῷ ὅλῳ ὑπάρχειν τῶν δὲ μερῶν μηδετέρῳ, τὸ δὲ εὐδαιμονεῖν ἀδύνατον. In these remarks we have only the other side of the truth; nor is it any solution of the difficulty here raised to represent the life of the guardians, as Plato himself does in a subsequent passage (*Rep.* v. 465 E), as the happiest. Plato in principle denies what Aristotle asserts, viz. that the happiness of the individuals as such must be the test and criterion of all political institutions; and for that very reason he in the same passage demands that the individuals should seek their highest happiness in unselfish devotion.

[2] *Polit.* ii. 5, 1263, b, 36: the true nature of the State must not be sacrificed to an exaggerated conception of unity (see p. 223, n. 1, *sup.*); ἀλλὰ δεῖ πλῆθος ὂν . . . διὰ

These remarks form a natural introduction to the discussion of the various forms of political constitution. To this, after criticising earlier political sketches and theories,[1] Aristotle applies himself in the third book of the *Politics*. The link which we should look for between the family and the State, viz. the conception of 'Society,' was not yet an object of inquiry. A science of Sociology belongs to modern, indeed to quite recent times. Even the idea of 'the community,' to which there then existed nearer analogies, is not a special subject of discussion. To Aristotle as a Greek the State is coincident with the City; the community, therefore, so far as it is different from the State, can only be the Village; this, however, is a merely transitional form which is lost in the City or Nation so soon as a comprehensive social union takes

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τὴν παιδείαν κοινὴν καὶ μίαν ποιεῖν [sc *τὴν πόλιν*]· *καὶ τόν γε μέλλοντα παιδείαν εἰσάγειν, καὶ νομίζοντα διὰ ταύτης ἔσεσθαι τὴν πόλιν σπουδαίαν, ἄτοπον τοῖς τοιούτοις* [community of women and goods] *οἴεσθαι διορθοῦν, ἀλλὰ μὴ τοῖς ἔθεσι καὶ τῇ φιλοσοφίᾳ καὶ τοῖς νόμοις.*

[1] One cannot here enter into the details of this criticism as they are to be found in the second book of the *Politics*. After a lively polemic (c. 1–5) against the community of women, children, and goods, and other proposals of the *Republic*, Aristotle proceeds to discuss (c. 6) PLATO'S *Laws* [on these and other assertions with regard to Plato's political philosophy see ZELLER, *Platon. Stud.* 288 sqq. 203–207]; the proposals of Phaleas and Hippodamus (c. 7 sq.); the Spartan (c. 9), the Cretan (c. 10), and the Carthaginian (c. 11) constitutions; and, finally (c. 12: see, however, *Ph. d. Gr.* i. 676), the laws of Solon, Zaleucus, Charondas, and other ancient legislators.

the place of mere local association limited to the needs of trade.[1]

But the particular institutions by means of which this social union has to realise its end, and the forms which it must take, will depend essentially upon the character of the individuals whom it includes. It is with these, therefore, that Aristotle next deals.

3. *The State and the Citizens*

The State is the composite whole, and the constituent parts of it—the subjects whose relations to one another are determined by the character of the constitution—are the citizens.[2] What, then, constitutes a citizen or citizenship? One can live in a city without being a citizen of it. Foreigners may even be admitted to its courts of law. On the other hand, it is not necessary that the citizen should be born of citizen parents, for in that case neither the first founders of a State nor those who at any time have the franchise conferred on them would be citizens.[3] A citizen in the proper sense of the word is one who is entitled to take part in the government of the State and in the administration of justice. A State is an aggregate of such persons, which must be sufficient of itself to satisfy all the demands of their common life.[4] It is true that as the essence of a thing consists in general not in its matter but in its form, the essence of the State must be sought for in its form or constitution. A State remains the same so long as its constitution remains unaltered, even although the individuals who are the People should change; on the other hand, the State changes when its constitution is changed, even although the citizens remain the same.[1] Yet it is equally true that the constitution has to adapt itself to the character and condition of the men for whom it is designed. The members of the State are not equal to one another in every respect, but neither are they unequal in every respect.[2] Now all constitutional law is concerned with the distribution of political rights and benefits. An equal distribution is just only on condition that the persons amongst whom they are distributed are themselves equal to one another. If, on

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[1] See p. 208, n. 1, *supra*.

[2] *Polit.* iii. 1, 1274, b, 36 sqq.: the πολιτεία is τῶν τὴν πόλιν οἰκούντων τάξις τις; the πόλις, on the other hand, is a composite whole consisting of many parts—πολιτῶν τι πλῆθος.

[3] *Polit.* iii. 1 sq. 1275, a, 7 sqq. b, 21 sqq.

[4] *Ibid.* c. 1, 1275, a, 22: πολίτης δ' ἁπλῶς οὐδὲν τῶν ἄλλων ὁρίζεται μᾶλλον ἢ τῷ μετέχειν κρίσεως καὶ ἀρχῆς (similarly, c. 13, 1283, b, 42). After some further

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explanations, in the course of which it is pointed out that under ἀρχὴ we must include the business of the popular assembly, Aristotle concludes, *ibid.* b, 18: ᾧ γὰρ ἐξουσία κοινωνεῖν ἀρχῆς βουλευτικῆς ἢ κριτικῆς, πολίτην ἤδη λέγομεν εἶναι ταύτης τῆς πόλεως, πόλιν δὲ τὸ τῶν τοιούτων πλῆθος ἱκανὸν πρὸς αὐτάρκειαν ζωῆς. With the last clause, cf. p. 208, nn. 1 and 2.

[1] c. 3, 1276, a, 34: How long may the πόλις be said to be one and the same? So long, it might be answered, as it is inhabited by the same race. But this is wrong: εἴπερ γάρ ἐστι κοινωνία τις ἡ πόλις, ἔστι δὲ κοινωνία πολιτῶν, πολιτείας γιγνομένης ἑτέρας τῷ εἴδει καὶ διαφερούσης τῆς πολιτείας ἀναγκαῖον εἶναι δόξειεν ἂν καὶ τὴν πόλιν εἶναι μὴ τὴν αὐτήν . . . . μάλιστα λεκτέον τὴν αὐτὴν πόλιν εἰς τὴν πολιτείαν βλέποντας ὄνομα δὲ καλεῖν ἕτερον ἢ ταὐτὸν ἔξεστι καὶ τῶν αὐτῶν κατοικούντων αὐτὴν καὶ πάμπαν ἑτέρων ἀνθρώπων. By πολιτεία, however, we must here understand, not merely the constitution in the narrower sense, but the whole social organisation.

[2] Cf. on the one hand p. 223, n. 1, and on the other *Pol.* iv. 11, 1295, b, 25: βούλεται δέ γε ἡ πόλις ἐξ ἴσων εἶναι καὶ ὁμοίων ὅτι μάλιστα, for only between such is φιλία and κοινωνία πολιτικὴ possible. Cf. vii. 8, 1328, a, 35. The citizens, as we shall find, will be equal in freedom, in common political rights and to a certain degree also in common social virtue; they will be unlike in property, avocation, descent, and individual capacity.

the other hand, the persons are unequal, justice requires an unequal distribution. In order, therefore, rightly to judge of the character of State institutions, we must know wherein consists this equality and inequality with which the State has to deal.[1]

Of essential importance in this regard are, first of all, the occupations and manner of life of the citizens.[2] Parallel to the distinction which we noted in the Household between freemen and slaves, we have among citizens themselves those who are exempt from menial labour, and those who have to devote themselves to it. One who performs menial offices for an individual is a slave: one who does so for the community is a day-labourer (*θὴς*) or artisan (*βάναυσος*)[3] The importance of this distinction appears from the statement[4] that the rights of citizenship belong to persons of this class only in imperfect States, but not in the best. The object of the latter is the happiness of the entire people; and so, as happiness is only attainable through virtue, no one who is incapable of true virtue can be a citizen in a State of which virtue is at once the basis and the end.

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[1] *Polit.* iii. 9 *init.*: Both oligarchy and democracy rest upon right: but neither upon perfect right. οἷον δοκεῖ ἴσον τὸ δίκαιον εἶναι, καὶ ἔστιν, ἀλλ' οὐ πᾶσιν ἀλλὰ τοῖς ἴσοις. καὶ τὸ ἄνισον δοκεῖ δίκαιον εἶναι· καὶ γάρ ἐστιν, ἀλλ' οὐ πᾶσιν ἀλλὰ τοῖς ἀνίσοις. c. 12, 1282, b, 16: ἔστι δὲ πολιτικὸν ἀγαθὸν τὸ δίκαιον, τοῦτο δ' ἐστὶ τὸ κοινῇ συμφέρον, δοκεῖ δὲ πᾶσιν ἴσον τι τὸ δίκαιον εἶναι, as is explained in the ethical discussions (see p. 171, *supra*). τὶ γὰρ καὶ τισὶ τὸ δίκαιον, καὶ δεῖν τοῖς ἴσοις ἴσον εἶναί φασιν. ποίων δ' ἰσότης ἐστὶ καὶ ποίων ἀνισότης, δεῖ μὴ λανθάνειν· ἔχει γὰρ τοῦτ' ἀπορίαν καὶ φιλοσοφίαν πολιτικήν. c. 13, 1283, a, 26 sqq.

[2] *Polit.* iii, 5, vii. 9.

[3] iii. 5, 1278, a, 11.

[4] iii. 5, 1278, a, 15 sqq. vii. 9, 1328, b, 27 sqq. 1329, a, 19 sqq. On this conception, which will often meet us again, especially in treating of the best State, see further viii. 2, 1337, b, 8 sqq. c. 4, 1338, b, 33, c. 5, 1339, b, 9, c. 6, 1340, b, 40, 1341, a, 5, b, 14.

Birth and property are two further important points for consideration. While freemen as such are all equal, the nobly born claim to have inherited higher ability and rank from their ancestors; the rich, on the other hand, demand a greater share in the government, on the ground that the greater part of the national property is in their hands, and that propertied men in all matters of business are more reliable than unpropertied. Aristotle does not, indeed, admit these claims unconditionally, but he does not regard them as wholly unjustified, for although political privileges cannot be claimed on the ground of each and every superiority, but only of such as are of political importance, yet it cannot be denied that the advantages in question are 'political.'[1] Thus while in speaking of property distinctions he rejects the oligarchical demand for a plutocracy with the pertinent observation that it would be justifiable only on the supposition that the State is nothing but a mercantile company,[2] yet he cannot conceal from himself that distinctions of wealth are of the highest significance for the State. Riches and poverty both involve many kinds of moral evil: the rich commit outrage through arrogance, the poor through dishonesty; the former know neither how to obey nor how to rule over freemen, the latter neither how to rule nor how to obey as freemen; and where a State has fallen asunder into rich and poor, it has lost the inner bond of its communal life, in the equality, unanimity, and social sympathy of the citizens. The well-to-do middle class, being the mean, is the best: it is best secured against excesses of its own and attacks of an enemy; it is the least anxious to put itself forward in political life; when the centre of gravity lies in it we have the most orderly and enduring form of government.[1] Whosoever would give stability to his political institutions must secure the support of this class, seeing that it holds the balance between the two contending parties of the rich and the poor.[2] More important still, however, is the political capacity of the citizens. The essential aim of the State is the happiness and moral perfection of the citizens; he who is able to contribute most to this will have the best claim to influence in the State. But that which more than any other quality fits a man to do so is virtue, especially justice and military ability, since, while the latter is indispensable for the preservation of the State, the former is that which lies at the foundation of all society and involves all other virtues.[3] There are thus different principles upon which political rights may be apportioned.[4] According as one or other of these is adopted, or as several of them are combined in a definite manner, will be the character of the resulting constitution. For while the differences in the general character of States depend upon the view taken of their end and of the means by which it is pursued,[1] the differences in the particular form of their constitution depend upon the share assigned to the different classes of the citizens in the public benefits and in the activities by which these are acquired.[2] The decisive question here, however, is:

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[1] iii. 12 sq. 1282, b, 21–1283, a, 37.

[2] iii. 9, 1280, a, 22 sqq.

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[1] iv. 11, 1295, b, 1—1296, a, 21, where it is further shown that great cities are more exempt from disquiet than small ones, because they have a more numerous middle class; that democracies are more stable than oligarchies, because the middle class finds itself more at home in them—only, however, on condition that it does so—and that the best lawgivers, *e.g.* Solon, Lycurgus, Charondas, have belonged to the middle class.

[2] iv. 12, 1296, a, 34 sqq.

[3] iii. 9, 1281, a, 2 sqq. c. 12 sq. 1283, a, 19–26, 37.

[4] The character and geographical position of the country, and similar external circumstances might also be here adduced. To the political importance of these, as may be seen from *Polit.* vii. 6, c. 11, 1330, b, 17, vi. 7, 1321, a, 8 sqq., Aristotle was keenly alive. He admits that a maritime situation favours the rise of a numerous nautical population and thereby promotes democratic institutions. He remarks that an acropolis is favourable to monarchy and oligarchy, a flat country to democracy, a number of fastnesses

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to aristocracy; that where horse-breeding succeeds, and cavalry is therefore the chief military weapon, oligarchies are easily formed, &c. At the same time he suggests means (*ibid.*) to counteract such results, and as these circumstances do not in any case affect the form of constitution immediately, but only through the character of the people as that is determined by them, he leaves them out of account in the present investigation.

[1] vii. 8, 1328, a, 35: ἡ δὲ πόλις κοινωνία τίς ἐστι τῶν ὁμοίων, ἕνεκεν δὲ ζωῆς τῆς ἐνδεχομένης ἀρίστης. ἐπεὶ δ' ἐστὶν εὐδαιμονία τὸ ἄριστον, αὕτη δὲ ἀρετῆς ἐνέργεια καὶ χρῆσίς τις τέλειος, συμβέβηκε δὲ οὕτως ὥστε τοὺς μὲν ἐνδέχεσθαι μετέχειν αὐτῆς, τοὺς δὲ μικρὸν ἢ μηδὲν, δῆλον ὡς τοῦτ' αἴτιον τοῦ γίγνεσθαι πόλεως εἴδη καὶ διαφορὰς καὶ πολιτείας πλείους· ἄλλον γὰρ τρόπον καὶ δι' ἄλλων ἕκαστοί τοῦτο θηρεύοντες τούς τε βίους ἑτέρους ποιοῦνται καὶ τὰς πολιτείας.

[2] After enumerating the forms of activity which are indispensable to the existence of society, and the corresponding classes of citizens (farmers, artisans, soldiers, proprietors, priests, judges and administrators) Aristotle proceeds *ibid.* c. 9 *init.*: διωρισμένων δὲ τούτων λοιπὸν σκέψασθαι πότερον πᾶσι κοινωνητέον πάντων τούτων . . . ἢ καθ ἕκαστον ἔργον τῶν εἰρημένων ἄλλους ὑποθετέον, ἢ τὰ μὲν ἴδια τὰ δὲ κοινὰ τούτων ἐξ ἀνάγκης ἐστίν. (Cf. ii. 1, 1260, b, 37.) ταῦτα γὰρ καὶ ποιεῖ τὰς πολιτείας ἑτέρας· ἐν μὲν γὰρ ταῖς δημοκρατίαις μετέχουσι πάντες πάντων, ἐν δὲ ταῖς ὀλιγαρχίαις τοὐναντίον. Similarly, and with express reference to this passage, iv. 3, 1289, a, 27 sqq.: τοῦ μὲν οὖν εἶναι πλείους πολιτείας αἴτιον ὅτι πάσης ἐστὶ μέρη πλείω πόλεως τὸν ἀριθμόν. A State consists of an aggregation of households, of people of large, small and average means, of warlike and unwarlike, of farmers, merchants and artisans; further, there are differences of birth and capacity (ἀρετή). Of these classes sometimes fewer, sometimes more, sometimes all, share in the government (πολιτεία). Φανερὸν τοίνυν ὅτι πλείους ἀναγκαῖον εἶναι πολιτείας εἴδει διαφερούσας ἀλλήλων· καὶ γὰρ ταῦτ' εἴδει διαφέρει τὰ μέρη σφῶν αὐτῶν. πολιτεία μὲν

Who possesses the supreme power—who is *sovereign* ?[1] The different possible ways of adjusting the relations of the various classes to one another are therefore enumerated by Aristotle with a view to preparing the way for an investigation into the comparative value of particular forms of constitution, the conditions of their rise and continuance, and the institutions which correspond to them.

4. *Forms of Constitution*

We are accustomed to understand by the term 'Constitution' only the general form of government of a particular State—the sum of the arrangements which regulate the distribution within it of political functions.[2]

γὰρ ἡ τῶν ἀρχῶν τάξις ἐστὶ, ταύτην δὲ διανέμονται πάντες ἢ κατὰ τὴν δύναμιν τῶν μετεχόντων ἢ κατά τιν' αὐτῶν ἰσότητα κοινήν . . . ἀναγκαῖον ἄρα πολιτείας εἶναι τοσαύτας ὅσαιπερ τάξεις κατὰ τὰς ὑπεροχάς εἰσι καὶ κατὰ τὰς διαφορὰς τῶν μορίων. With the same view of explaining the different forms of constitution, the different classes in a community are then again enumerated (c. 4, 1290, b, 21 sqq.) as follows: farmers, artisans, traders, day-labourers, soldiers, rich (*εὔποροι*) who serve the state with their money, magistrates, judges, and members of the supreme administration. (In this enumeration, the words *ἕβδομον* and *ὄγδοον*, 1291, a, 33 sq., cause a difficulty, to avoid which NICKES, *De Arist. Polit. libr.* 110, proposes to read *ἕκτον* and *ἕβδομον*, while SUSEMIHL, *in loco*, with CONRING, supposes a lacuna before *ἕβδομον*, in which he supposes the sixth class was mentioned.)

[1] iii. 6 *init.*: We must ask how many and what constitutions there are ? *ἔστι δὲ πολιτεία πόλεως τάξις τῶν τε ἄλλων ἀρχῶν καὶ μάλιστα τῆς κυρίας πάντων. κύριον μὲν γὰρ πανταχοῦ τὸ πολίτευμα τῆς πόλεως, πολίτευμα δ' ἐστὶν ἡ πολιτεία.* (Cf. c. 7, 1279, a, 25.) In democracies the people is sovereign (*κύριος*); in oligarchies only a minority of the people: hence the difference in these forms of constitution.

[2] This is at least the scientific conception of the constitution; the written documents which define the constitution certainly neither contain all that according to this conception is included under it, nor do they confine themselves to it, but generally they contain all those laws which, as fundamental to the State, seem to require special sanction.

Aristotle meant far more by it. He comprehends under the corresponding word 'Polity,' not only all this, but also the substantial character of the community in question, as that expresses itself in the accepted theory of the State and in the spirit of its government.[1] He has thus the advantage of exhibiting more clearly than is commonly done by modern writers the connection of the political institutions of a people with its life as a whole, and is less exposed to the danger of treating these as something independent and equally applicable to all communities. Here as elsewhere in the *Politics* the leading characteristic of his method is the care he takes scientifically to trace everything back to its real source, and to find the principle of its explanation in its own peculiar nature. On the other hand, it cannot be denied that the treatment of political constitutions suffers in simplicity when it does not confine itself to deducing them as the forms of an organised civil life from the spirit and mutual relations of the citizens, but mixes itself up with the discussion of the legal details of that life itself. Aristotle is not free from this confusion,[2] although in general he has clearly distinguished between questions of law and constitution.[1]

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[1] As is obvious, *inter alia*, from p. 232, n. 1, with which cf. p. 232, n. 2, and p. 233, n. 1, *supra*.

[2] Besides the passage just referred to above, see esp. *Polit.* iv. 1, 1289, a, 13: *πρὸς γὰρ τὰς πολιτείας τοὺς νόμους δεῖ τίθεσθαι καὶ τίθενται πάντες, ἀλλ' οὐ τὰς πολιτείας πρὸς τοὺς νόμους. πολιτεία μὲν γάρ ἐστι τάξις ταῖς πόλεσιν ἡ περὶ τὰς ἀρχὰς, τίνα τρόπον νενέμηνται, καὶ τί τὸ κύριον τῆς πολιτείας καὶ τί τὸ τέλος ἑκάστης τῆς κοινωνίας ἐστίν· νόμοι δὲ κεχωρισμένοι τῶν δηλούντων τὴν πολιτείαν, καθ' οὓς δεῖ τοὺς ἄρχοντας ἄρχειν καὶ φυλάττειν τοὺς παραβαίνοντας αὐτούς.* So also vii. 13 *init.*, and throughout the whole discussion of the different forms of constitution, the question as to the nature of the *πολιτεία* is taken to involve that of the ultimate aim of the State, and the investigation into the *ἀρίστη πολιτεία* (see *infra*) is more concerned with the laws upon education and the like than with questions properly constitutional in our sense.

In investigating political constitutions Aristotle complains[2] that previous writers had contented themselves with representing an ideal State, or else with eulogising the Spartan or some other historical constitution. Aristotle himself aims at a more exhaustive treatment of his subject. Political science cannot, he says, any more than any other, limit itself to the description of an ideal. It must also show what form of State is the best attainable under certain given circumstances; it must further take account of actually existing constitutions and of the conditions of their rise and maintenance; and it must be able, finally, to declare what institutions are best adapted for the majority of States.[3] The description of the political ideal must therefore be supplemented by a comprehensive survey of actual facts. Aristotle does not renounce such an ideal, but desires at the same time to investigate all other possible forms of State, the conditions under which they naturally rise, the laws which they adopt, and the institutions by which they are maintained. He examines States with the keen sense of the scientific investigator, who pays equal regard to the small and the great, to the normal and the abnormal, as well as with the practical eye of the statesman, who desires to do justice to the actual circumstances and adapt his ideal to the given conditions.[1] He possesses, moreover,

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[1] See preced. n. and *Polit.* ii. 6, 1265, a, 1; *Eth.* x. 10, 1181, b, 12: as his predecessors have not (sufficiently) investigated the question of legislation, he will himself treat generally of this as well as of the State (πολιτεία). L. 21: ποία πολιτεία ἀρίστη, καὶ πῶς ἑκάστη ταχθεῖσα, καὶ τίσι νόμοις καὶ ἔθεσι χρωμένη.

[2] *Polit.* iv. 1, 1288, b, 33 sqq. This complaint, however, is not altogether just in respect of Plato, who not only in the *Laws* had placed a second State beside his ideal republic, but in the *Rep.* itself had fully discussed the imperfect forms of constitution. It is true, however, that none of these investigations satisfies Aristotle's requirements.

[3] *Polit.* iv. 1. Aristotle here sets before Politics a fourfold problem: (1) πολιτείαν τὴν ἀρίστην θεωρῆσαι τίς ἐστι καὶ ποία τις ἂν οὖσα μάλιστ' εἴη κατ' εὐχὴν, μηδενὸς ἐμποδίζοντος τῶν ἐκτός; (2) besides the ἁπλῶς κρατίστη to discuss also τὴν ἐκ τῶν ὑποκειμένων ἀρίστην; similarly (3), τὴν ἐξ ὑποθέσεως, and (4) τὴν μάλιστα πάσαις ταῖς πόλεσιν ἁρμόττουσαν (on which see c. 11 *init.*). Of these four questions the third has not infrequently been very strangely misunderstood, *e.g.* by BARTHÉLEMY ST-HILAIRE, but also by GÖTTLING *in loco*. Aristotle himself, however, states (1288, b, 28) his meaning quite unambiguously. ἔτι δὲ τρίτην, he says, τὴν ἐξ ὑποθέσεως· δεῖ γὰρ καὶ τὴν δοθεῖσαν δύνασθαι θεωρεῖν, ἐξ ἀρχῆς τε πῶς ἂν γένοιτο, καὶ γενομένη τίνα τρόπον ἂν σώζοιτο

πλεῖστον χρόνον· λέγω δ' οἷον εἴ τινι πόλει συμβέβηκε μήτε τὴν ἀρίστην πολιτεύεσθαι πολιτείαν ἀχορήγητόν τε εἶναι καὶ τῶν ἀναγκαίων [the necessary requisites for the best], *μήτε τὴν ἐνδεχομένην ἐκ τῶν ὑπαρχόντων, ἀλλά τινα φαυλοτέραν.* (Cf. iv. 11, 1296, b, 9: *λέγω δὲ τὸ πρὸς ὑπόθεσιν, ὅτι πολλάκις οὔσης ἄλλης πολιτείας αἱρετωτέρας ἐνίοις οὐθὲν κωλύσει συμφέρειν ἑτέραν μᾶλλον εἶναι πολιτείαν*; also v. 11, 1314, a, 38.) The *πολιτεία ἐξ ὑποθέσεως* is, according to this statement, identical with *ἡ δοθεῖσα πολιτεία*, *ὑπόθεσις* indicating the given case, the particular circumstances that are actually present, and having, therefore, essentially the same meaning as on p. 247, n. 2, and *Ph.d.Gr.* i. 1015 *med.*, where it is distinguished from *θέσις*. With the above passage PLAT. *Laws*, v. 739, A sqq., has been compared. The resemblance, however, is a remote one; for (1) Plato speaks not of four but only of three States to be depicted; (2) he enters into no details with reference to the third of these (the first is that of the *Rep.*, the second that of the *Laws*), but he can hardly have been thinking of actually existing States; (3) even the second State, that of the *Laws*, does not correspond with Aristotle's *πολιτεία ἐκ τῶν ὑποκειμένων ἀρίστη*, for Plato does not show in this work what is the best that can be evolved from existing circumstances, but, just as in the *Rep.*, sketches the outline of an ideal State, which only differs from that in the *Rep.* in bearing a closer resemblance to reality. Still less can the State in the *Laws* be identified with Aristotle's *πολιτεία ἐξ ὑποθέσεως ἀρίστη*, nor would Grote have done so (*Plato*, iii. 357 sq.) had he not wrongly explained *ὑπόθεσις* to mean an 'assumed principle.'

[1] See his complaint against his predecessors, *ibid.* 1288, b, 35: *ὡς οἱ πλεῖστοι τῶν ἀποφαινομένων περὶ πολιτείας, καὶ εἰ τἆλλα*

the philosophic spirit, which traces political institutions back to their inner sources, looks past individual facts to universal conceptions, and while engaged in the investigation of existing realities keeps an eye steadily fixed on the ideal. It is just this combination of dissimilar and rarely united qualities that makes Aristotle's political philosophy so unique and unrivalled in its kind.

Two points of view have emerged in the preceding discussion, from which we may distinguish and estimate the different forms of political constitution—viz. the recognised aim of government, and the distribution of political power. In the former respect the contrast is between those States in which the common good and those in which the advantage of the rulers is pursued as the highest end.[1] In treating, on the other hand, of the distribution of political power, Aristotle retains at first the customary arithmetical division of States according as they are governed by one, by some, or by all of the citizens. Combining these two principles, he enumerates six forms of constitution, three of which are good and three bad, setting down all those as unjust and despotic in which the aim is not the common good, but the advantage of the rulers.[2] Where the

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λέγουσι καλῶς, τῶν γε χρησίμων διαμαρτάνουσιν.

[1] iii. 6. 1278 a, 30 sqq.: As in the household the government of the slaves aims at securing in the first instance the advantage of the master, and only secondarily that of the slaves as a means to the former, and as the government of the family, on the other hand, aims primarily at the good of the governed, but in a secondary way also at that of the head of the house in so far as he is himself a member of the family—so in the State we must distinguish the two above-mentioned kinds of government.

[2] iii. 6 *fin.*: *φανερὸν τοίνυν ὡς ὅσαι μὲν πολιτεῖαι τὸ κοινῇ συμφέρον*

administration has for its object the common good, if one is the sovereign, we have a monarchy; if a minority, an aristocracy; if the whole body of the citizens, a polity; where it has for its object the advantage of the sovereign, monarchy degenerates into tyranny, aristocracy into oligarchy, polity into democracy.[1] This

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σκοποῦσιν, αὗται μὲν ὀρθαὶ τυγχάνουσιν οὖσαι κατὰ τὸ ἁπλῶς δίκαιον, ὅσαι δὲ τὸ σφέτερον μόνον τῶν ἀρχόντων, ἡμαρτημέναι πᾶσαι καὶ παρεκβάσεις τῶν ὀρθῶν πολιτειῶν· δεσποτικαὶ γὰρ, ἡ δὲ πόλις κοινωνία τῶν ἐλευθέρων ἐστίν. Hence iii 17 *init.*: *ἔστι γάρ τι φύσει δεσποστὸν καὶ ἄλλο βασιλευτὸν καὶ ἄλλο πολιτικὸν καὶ δίκαιον καὶ συμφέρον· τυραννικὸν δ' οὐκ ἔστι κατὰ φύσιν, οὐδὲ τῶν ἄλλων πολιτειῶν ὅσαι παρεκβάσεις εἰσίν· ταῦτα γὰρ γίγνεται παρὰ φύσιν.*

[1] *Polit.* iii. 7, iv. 2, 1289, a, 26, b, 9; *Eth.* viii. 12. Aristotle's account is here essentially that of Plato in the *Politicus* (cf. *Ph. d. Gr.* i. p. 784), of which he himself, *Polit.* iv. 2, 1289, b, 5, reminds us, while at the same time he differs from it in a single respect. There is, indeed, between the *Ethics* and the *Politics* this divergency, that while in the latter the third of the three true forms of constitution is called simply 'polity,' it is said in the *Ethics*: *τρίτη δ' ἡ ἀπὸ τιμημάτων, ἣν τιμοκρατικὴν λέγειν οἰκεῖον φαίνεται, πολιτείαν δ' αὐτὴν εἰώθασιν οἱ πλεῖστοι καλεῖν.* This discrepancy, however, is not so important that we may infer from it a change in Aristotle's political views, or that to permit time for its occurrence we may place the *Ethics* on this ground considerably earlier than the *Politics*. For as a matter of fact the latter also describes its polity as a timocracy (see *Ph. d. Gr.* i. p. 745 sq.), so that the difference resolves itself finally into this: that in the *Ethics*, *brevitatis causa*, Aristotle calls it timocracy, whereas in the *Politics* he appropriates to it the common term *πολιτεία*, as he has room here to describe more accurately what he means by it. Isocr. *Panath.* 131, has been taken to refer to the passage just cited from the *Ethics* (Oncken, *Staatsl. d. Arist.* ii. 160), and the conclusion drawn that the *Ethics* cannot have been composed later than ann. 342–339 B.C. (Henkel, *Stud. zür Gesch. d. griech. Lehre vom Staat*, 46; Oncken takes another view). But it seems more probable that the passage refers to Plato, who in the *Politicus* (302 D sq.) adduces legal democracy, and in the *Republic* (viii. 545 B, C) timocracy, as peculiar forms of constitution; for Isocrates does not say that the writer upon whom his attack is made identifies these two (as Aristotle does). If, however, we are to find here a reference to the *followers* of Plato as well, and especially to Aristotle, it would probably be better to suppose that the rhetorician has in view one of his dia-

principle of arrangement, however, is not consistently preserved throughout; for while it might appear from the above statement that aristocracy and polity differ from monarchy only in the number of the rulers, we learn in another passage that this itself depends upon the character of the people. So the government by one is natural where in a people one family has a pre-eminent faculty for government; aristocracy, where a community of free citizens is content to submit to the government of the fittest; polity, where the population is a military one which, having distributed the offices of State among the propertied classes according to the standard of merit, knows both how to command and how to obey.[1] Referring further to the distinction between democracy and oligarchy, Aristotle criticises those who look for it in the fact that in the former the whole body, in the latter a minority, of the citizens hold the sovereignty. This numerical distinction, he holds, is merely accidental and derivative: the essential opposition of these two forms of constitution consists in the fact that in the one the rich, in the other the poor, bear rule.[2] In like manner that polity which stands between them is distinguished by the preponderance of the middle class.[3] Elsewhere he finds the characteristic

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logues (such as that mentioned in *Polit.* iii 6; see i. p. 119, n. 1, *supra*). That the *Ethics* cannot have been composed so early as Henkel believes, has already been shown, i. p. 154 sq.

[1] iii. 17, 1288, a, 1: βασιλευτὸν μὲν οὖν τὸ τοιοῦτόν ἐστι πλῆθος ὃ πέφυκε φέρειν γένος ὑπερέχον κατ' ἀρετὴν πρὸς ἡγεμονίας πολιτικήν, ἀριστοκρατικὸν δὲ πλῆθος ὃ πέφυκε φέρειν πλῆθος ἄρχεσθαι δυνάμενον τὴν τῶν ἐλευθέρων ἀρχὴν ὑπὸ τῶν κατ' ἀρετὴν ἡγεμονικῶν πρὸς πολιτικὴν ἀρχήν, πολιτικὸν δὲ πλῆθος ἐν ᾧ πέφυκεν ἐγγίνεσθαι πλῆθος πολεμικόν, δυνάμενον ἄρχεσθαι καὶ ἄρχειν κατὰ νόμον τὸν κατ' ἀξίαν διανέμοντα τοῖς εὐπόροις τὰς ἀρχάς.

[2] *Polit.* iii. 8, cf. c. 7 *fin.* iv. 11, 12, 1296, a, 1, b, 24 sqq.

[3] iv. 12, 1296, b, 38.

peculiarity of democracy in freedom and equality, in the fact that all free men have an equal share in the government; and then combining this principle with the two others, he says that in democracy the majority of the poor and the free, in oligarchy conversely the minority of the rich and the noble, are the rulers;[1] for since in a State where all are equal the majority of votes decides, and the poor always form a majority, these have necessarily the power in their own hands.[2] Following up the same line of thought, he indicates virtue, wealth, and freedom as severally characteristic of different forms of constitution: virtue of aristocracy, wealth of oligarchy, freedom of democracy.[3] In a third passage[1] he enumerates four constitutions: democracy, oligarchy, aristocracy, and government by one. In a democracy, he says, the offices of government are distributed according to lot, in an oligarchy according to property, in an aristocracy according to education.[2] The government of one is a monarchy if it is founded upon law and order; otherwise it is a tyranny. These statements are not altogether consistent with one another; but a still greater difficulty arises from the circumstance that in the further development of his argument Aristotle diverges widely from the order of arrangement which is naturally suggested by the previous survey of the different forms of constitution. Thus we should have expected from Book III. 14 onwards a discussion first of the three good kinds of State, and then of the three bad. Instead of this, Aristotle follows up the introductory dissertations which occupy chaps. 9–13 of the third book with a discussion of monarchy (III. 14–17); he next proposes to investigate (III. 18) the best form of State, which, however, he only partially does in the books (VII. and VIII.) which ought to follow here; he next turns, in the fourth book (chap. 2), to the remaining forms of constitution, with the remark that of the six previously enumerated forms monarchy and aristocracy have been disposed of, as these coincide with the best State, and that it therefore remains to discuss polity, oligarchy, democracy, and tyranny; he accordingly now proceeds to investigate, in the first place (chap. 4, 1291, b, 14–chap. 6, end), the different forms of democracy and oligarchy; then (chap. 8 sq.) polity as the proper blending of these two constitutions, along with several kindred forms (chap. 7); and, lastly, tyranny (chap. 10). This divergence from the previous account is much too fundamental to permit of its being accounted for by the incomplete character of the *Politics* alone, and too indispensable to permit of its being explained away.[1] We are forced to admit that just as Aristotle in his account of the distinguishing characteristics of democracy and oligarchy unites several different points of view which he fails completely to harmonise with one another, so also in his treatment of polity he is not free from a certain vacillation. On the one hand, he reckons it among the good States, on the ground that it is based upon the virtue of the citizens and aims at the common good. On the other hand, he is unable to place it on a level with true monarchy and aristocracy.[1] For it is still government by the many, and a majority can never atttain to so high a degree of virtue and insight as is possible to one or to few. The one field in which a polity can win distinction is the military, and accordingly the sovereign in it will naturally be the collective body of those capable of bearing arms.[2] The virtue, therefore, upon which the State is here founded is an imperfect one. The natural antagonisms between the citizens are not removed, as in an aristocracy, by a comprehensive and uniform education of all and an equal freedom from meaner employments. The problem, therefore, must be to devise for it such institutions that antagonistic forces will be held in equilibrium, the excesses alike of democracy and of oligarchy avoided, and the foundation laid for that predominance of the middle classes which constitutes in Aristotle's opinion, as we shall see, the chief advantage of polity. While it is possible in this way to explain the place which this form of constitution occupies in Aristotle's account, the ambiguity of its position remains a permanent defect in his theory of the State. The fundamental mistake,

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[1] iv. 4, where it is first said (1290, b, 1): *δῆμος μέν ἐστιν ὅταν οἱ ἐλεύθεροι κύριοι ὦσιν, ὀλιγαρχία δ' ὅταν οἱ πλούσιοι*, but afterwards at the end (l. 17): *ἀλλ' ἔστι δημοκρατία μὲν ὅταν οἱ ἐλεύθεροι καὶ ἄποροι πλείους ὄντες κύριοι τῆς ἀρχῆς ὦσιν, ὀλιγαρχία δ' ὅταν οἱ πλούσιοι καὶ εὐγενέστεροι ὀλίγοι ὄντες*. *Ibid.* 1291, b, 34: *εἴπερ γὰρ ἐλευθερία μάλιστ' ἐστὶν ἐν δημοκρατίᾳ καθάπερ ὑπολαμβάνουσί τινες καὶ ἰσότης.*

[2] vi. 2 *init*; *ὑπόθεσις μὲν οὖν τῆς δημοκρατικῆς πολιτείας ἐλευθερία* [or as it is expressed 1317, b, 16: *ἐλευθερία ἡ κατὰ τὸ ἴσον*] . . . *ἐλευθερίας δὲ ἓν μὲν τὸ ἐν μέρει ἄρχεσθαι καὶ ἄρχειν, καὶ γὰρ τὸ δίκαιον τὸ δημοτικὸν τὸ ἴσον ἔχειν ἐστὶ κατ' ἀριθμὸν ἀλλὰ μὴ κατ' ἀξίαν, τούτου δ' ὄντος τοῦ δικαίου τὸ πλῆθος ἀναγκαῖον εἶναι κύριον, καὶ ὅ τι ἂν δόξῃ τοῖς πλείοσι, τοῦτ' εἶναι καὶ τέλος καὶ τοῦτ' εἶναι τὸ δίκαιον· φασί γὰρ δεῖν ἴσον ἔχειν ἕκαστον τῶν πολιτῶν· ὥστε ἐν ταῖς δημοκρατίαις συμβαίνει κυριωτέρους εἶναι τοὺς ἀπόρους τῶν εὐπόρων· πλείους γάρ εἰσι, κύριον δὲ τὸ τοῖς πλείοσι δόξαν.* The equality of all citizens is thus seen to be the fundamental point from which government by majority follows as an inference (*συμβαίνει*) and from that again government by the poor.

[3] iv. 8, 1294, a, 10: *ἀριστοκρατίας μὲν γὰρ ὅρος ἀρετή, ὀλιγαρχίας δὲ πλοῦτος, δήμου δ' ἐλευθερία.* L. 19: *τρία ἐστὶ τὰ ἀμφισβητοῦντα τῆς ἰσότητος τῆς πολιτείας, ἐλευθερία πλοῦτος ἀρετή (τὸ γὰρ τέταρτον, ὃ καλοῦσιν εὐγένειαν, ἀκολουθεῖ τοῖς δυσίν· ἡ γὰρ εὐγένειά ἐστιν ἀρχαῖος πλοῦτος καὶ ἀρετή).* Cf. iii. 12, 1283, a, 16 sqq. (see p. 229, *supra*); v. 9, 1310, a, 28; *Rhet.* i. 8, 1366, a, 4: *ἔστι δὲ δημοκρατίας μὲν τέλος ἐλευθερία, ὀλιγαρχίας δὲ πλοῦτος, ἀριστοκρατίας δὲ τὰ πρὸς παιδείαν καὶ τὰ νόμιμα, τυραννίδος δὲ φυλακή.*

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[1] *Rhet.* i. 8, 1365, b, 29.

[2] *Παιδεία ὑπὸ τοῦ νόμου κειμένη*. by which we are to understand not so much intellectual culture as an education in accordance with law and morality and the political capacity and attachment to the existing constitution which spring from it: *οἱ γὰρ ἐμμεμενηκότες ἐν τοῖς νομίμοις ἐν τῇ ἀριστοκρατίᾳ ἄρχουσιν*, *ibid.* l. 35.

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[1] *E. g.* in the manner proposed by FECHNER (*üb. d. Gerechtigkeitsbegriff d. Arist.* p. 71 sq. n., cf. p. 92, 1), who assumes that by the polity of *Eth.* viii. 12 and *Polit.* iv. we must understand something different from the 'true polity' which appears in *Polit.* vii. as the ideal State. Setting aside the unlikelihood of Aristotle's describing two different forms of constitution by the same name without qualifying addition, and of his totally omitting in his subsequent discussion all further mention of the 'true polity' described in iii., we may point out: (1) that the perfect State described in vii. and viii. is never referred to (not even iii. 7, 1279, a, 39, vii. 14, 1332, a, 34) as polity (*πολιτεία* simply), but as aristrocacy or *ἀρίστη πολιτεία* (*e.g.* iv. 7, 1293, b, 1, c. 2, 1289, a, 31), and that polity stands only third among true constitutions: (2) that in passages such as *Polit.* iv. 2 *init.* c. 8 *init.* we are expressly forbidden to make any distinction between the polity of iv. and of the *Ethics*, and the polity previously mentioned among the true forms of constitution.

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[1] Cf. *Eth.* viii. 12, 1160, a, 35: *τούτων δὲ* [of the true forms of State] *βελτίστη μὲν ἡ βασιλεία, χειρίστη δ' ἡ τιμοκρατία* (which here = *πολιτεία*; cf. p. 238, n. 1, *sup.*) b, 16: democracy is chiefly related to timocracy, the majority of the citizens ruling in both witb equal right, and springs from it almost imperceptibly.

[2] iii. 7, 1279, a, 39: *ἕνα μὲν γὰρ διαφέρειν κατ' ἀρετὴν ἢ ὀλίγους ἐνδέχεται, πλείους δ' ἤδη χαλεπὸν ἠκριβῶσθαι πρὸς πᾶσαν ἀρετὴν ἀλλὰ μάλιστα τὴν πολεμικήν· αὕτη γὰρ ἐν πλήθει γίγνεται. διόπερ κατὰ ταύτην τὴν πολιτείαν κυριώτατον τὸ προπολεμοῦν καὶ μετέχουσιν αὐτῆς οἱ κεκτημένοι τὰ ὅπλα.* In accordance with this passage and c. 17 (see 239, n. 1, *supra*) we should read in l. 37 (differently from SPENGEL, *Abh. d. Münchn. Akad. philos.-philol. Kl.* v. 23), instead of *τὸ πλῆθος*, *τὸ πολεμικὸν πλῆθος*.

however, which is the cause of this ambiguity, consists in the crude division of political constitutions into good and bad, with which he starts. In polity and that improper form of aristocracy which is akin to it, there obtrudes itself between these two alternatives a third kind, which has no clear place assigned to it, unless we give up this division and supplement the qualitative opposition between good and bad by a quantitative difference in degrees of perfection.[1]

Inquiring next into the respective titles of these different forms of constitution, we must first recal what was said above—viz. that in each and all of them the question is of a distribution of rights and privileges which can only be determined according to the principles of distributive justice. These demand that equals receive an equal portion; unequals, on the contrary, in proportion to their inequality an unequal portion.[2] It is not, however, each and every superiority that entitles to political privileges, but only those which, like birth, freedom, wealth, virtue, stand in intimate relation to the qualities which are essential to a citizen, and are the indispensable elements in a full and satisfying social life.[1] But even any one of such advantages as these confers no title to rule in the State. Those who demand to stand on a footing of equality with others in everything because they are equal in something, or who assert pre-eminence in all respects on the ground of pre-eminence in some, put forward an unfounded claim.[2] The problem therefore is, to determine the relative worth of those qualities upon which a title to political privileges can be based, and thus to estimate the value of the claims of the various classes to the sovereignty, as these express themselves in the various forms of constitution.[3] The highest of these qualities, and that which in the perfect State is alone of importance, Aristotle declares, as we have already seen,[4] to be virtue; although he does not deny to the others their importance. But besides the character of individuals, we must also take into account their numerical proportion. It does not follow because an individual or the members of a minority are superior to all the rest individually in virtue, insight and property, that they must therefore be superior to the whole body taken together. A majority of individuals, each of whom taken by himself is inferior to the minority, may as a whole possess an advantage over them, as each member finds his complement in the other, and all thus attain a higher perfection. The individual contribution to the

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[1] Aristotle himself takes occasion (iv. 8 *init.*) to justify the place he assigns to polity. *'Ετάξαμεν δ' οὕτως*, he says, *οὐκ οὖσαν οὔτε ταύτην* [polity] *παρέκβασιν οὔτε τὰς ἄρτι ῥηθείσας ἀριστοκρατίας, ὅτι τὸ μὲν ἀληθὲς πᾶσαι διημαρτήκασι τῆς ὀρθοτάτης πολιτείας*, &c. But this only serves to corroborate the above remarks. For if polity is neither the best nor a vicious form of constitution, it is obvious that constitutions cannot be divided simply into good and bad, seeing that what differentiates polity from the best State is a mere want, so that one and the same constitution presents itself in comparison with the best as a defective one (*διημαρτήκασι*), in comparison with all others as a true one. Even in respect of the other forms Aristotle admits that they may be relatively good; cf. *e.g.* v. 9, 1309, b, 18–35.

[2] See p. 228 sq. *supra*.

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[1] iii. 12, 1282, b, 21-1283, a, 23; cf. p. 229 sq. *supra*.

[2] iii. 9, 1280, a, 22, c. 13, 1283, a, 26, v. 1, 1301, a, 25 sqq. b, 35.

[3] Aristotle does not himself formulate the problem precisely thus, but the above statement of it corresponds to what he says iii. 13, 1283, a, 29-b, 9 upon the *ἀμφισβήτησις* and the *κρίσις τίνας ἄρχειν δεῖ*.

[4] P. 230 sq. *supra*.

State in this case is less, but the sum of the contributions is greater than in the case of the others.[1] If this does not hold of every body of people without distinction, yet there may be peoples of whom it is true.[2] In such cases, while it would certainly be wrong to entrust to individual members of the majority offices of State which require special personal qualifications, yet it must be the people as a whole who in the public assemblies and law courts pass decisions, elect magistrates, and supervise their administration,[3] all the more as it would be in the highest degree dangerous for the State to convert the majority of the citizens into enemies by completely excluding them from a share in the government.[4] In answer to the objection that this is to set the incapable in judgment over the capable, to place the more important function (viz. the highest authority in the State) in the hands of those who are excluded from the less important (viz. the individual offices), Aristotle adds to the above exposition[1] the further pertinent observation that there are many things of which the user can judge as well as or better than the specialist who makes them:[2] in other words, that the people, although it may not understand much about the details of State and government, may yet know well enough whether or not a government is advancing its interests. The smaller capacity, therefore, of the individuals may be counterbalanced and even outweighed by their greater numbers; and *vice versa*, their greater capacity by their smaller number. The more capable have no claim to the possession of power if there are too few of them to govern or to form of themselves a State.[3] The first condition of the survival of any constitution is that its supporters should be superior to its enemies. But this is a question, not of quality alone, but of numbers. It is only by taking both of these elements into account that we can properly estimate the balance of political power. The stronger party is the one which is superior to the other, either in both these respects or so decisively in one of them that the deficiency in the other is more than counterbalanced.[1] The influence of individuals or classes will be in proportion to the amount which they severally contribute to the stability of the State and the attainment of its end. The end, however, must always be the good of the whole, and not the advantage of any particular class.[2] And since this object is more certainly attained under the rule of law than under that of men, who are continually subject to all kinds of weakness and passion, Aristotle differs from Plato[3] in concluding that it is better that good laws hold sway, and that magistrates be left to the freedom of their own will only in cases which laws fail to cover, owing to their necessary universality and the impossibility of taking account of every individual case that may occur. If it be objected that the law may itself be partial, Aristotle admits that it is true; the law will be good or bad, just or unjust, according as the constitution is so, since laws everywhere correspond to the existing constitution. But the conclusion which he draws is, not that persons instead of laws should adjudicate, but that constitutions should be good.[1] The final result of all these considerations is, therefore, the demand for an order founded upon law, and aiming at the common good of all, in which influence and privilege should be assigned to individuals and classes according to their importance for the life of the whole.

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[1] Aristotle frequently returns to this acute remark, which is of so much importance in estimating democratic institutions ; see iii. 11 *init.*: ὅτι δὲ δεῖ κύριον εἶναι μᾶλλον τὸ πλῆθος ἢ τοὺς ἀρίστους μὲν ὀλίγους δέ, δόξειεν ἂν λύεσθαι καί τιν' ἔχειν ἀπορίαν, τάχα δὲ κἂν ἀλήθειαν. τοὺς γὰρ πολλούς, ὧν ἕκαστός ἐστιν οὐ σπουδαῖος ἀνήρ, ὅμως ἐνδέχεται συνελθόντας εἶναι βελτίους ἐκείνων, οὐχ ὡς ἕκαστον ἀλλ' ὡς σύμπαντας, οἷον τὰ συμφορητὰ δεῖπνα τῶν ἐκ μιᾶς δαπάνης χορηγηθέντων [similarly c. 15, 1286, a, 25]· πολλῶν γὰρ ὄντων ἕκαστον μόριον ἔχειν ἀρετῆς καὶ φρονήσεως, καὶ γίνεσθαι συνελθόντας ὥσπερ ἕνα ἄνθρωπον τὸ πλῆθος πολύποδα καὶ πολύχειρα καὶ πολλὰς ἔχοντ' αἰσθήσεις. οὕτω καὶ περὶ τὰ ἤθη καὶ τὴν διάνοιαν. c. 13, 1283, a, 40: ἀλλὰ μὴν καὶ οἱ πλείους πρὸς τοὺς ἐλάττους [sc. ἀμφισβητήσειαν ἂν περὶ τῆς ἀρχῆς]· καὶ γὰρ κρείττους καὶ πλουσιώτεροι καὶ βελτίους εἰσίν, ὡς λαμβανομένων τῶν πλειόνων πρὸς τοὺς ἐλάττους. 1283, b, 33: οὐδὲν γὰρ κωλύει ποτὲ τὸ πλῆθος εἶναι βέλτιον τῶν ὀλίγων καὶ πλουσιώτερον, οὐχ ὡς καθ' ἕκαστον ἀλλ' ὡς ἀθρόους.

[2] iii. 11, 1282, b, 15.

[3] By the public scrutiny (εὐθύνη), c. 11, 1281, b, 33, 1282, a, 26.

[4] c. 11, 1281, b, 21 sqq., especially l. 34: πάντες μὲν γὰρ ἔχουσι συνελθόντες ἱκανὴν αἴσθησιν, καὶ μιγνύμενοι τοῖς βελτίοσι τὰς πόλεις ὠφελοῦσιν, καθάπερ ἡ μὴ καθαρὰ τροφὴ μετὰ τῆς καθαρᾶς τὴν πᾶσαν ποιεῖ χρησιμωτέραν τῆς ὀλίγης· χωρὶς δ' ἕκαστος ἀτελὴς περὶ τὸ κρίνειν ἐστίν.

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[1] Cf. further c. 11, 1282, a, 14: *ἔσται γὰρ ἕκαστος μὲν χείρων κριτὴς τῶν εἰδότων, ἅπαντες δὲ συνελθόντες ἢ βελτίους ἢ οὐ χείρους.* L. 34: *οὐ γὰρ ὁ δικαστὴς οὐδ' ὁ ἐκκλησιαστὴς ἄρχων ἐστὶν, ἀλλὰ τὸ δικαστήριον καὶ ἡ βουλὴ καὶ ὁ δῆμος· τῶν δὲ ῥηθέντων ἕκαστος μόριόν ἐστι τούτων . . . ὥστε δικαίως κύριον μειζόνων τὸ πλῆθος· ἐκ γὰρ πολλῶν ὁ δῆμος καὶ ἡ βουλὴ καὶ τὸ δικαστήριον. καὶ τὸ τίμημα δὲ πλεῖον τὸ πάντων τούτων ἢ τῶν καθ' ἕνα καὶ κατ' ὀλίγους μεγάλας ἀρχὰς ἀρχόντων.*

[2] *Ibid.* 1282, a, 17.

[3] iii. 13, 1283, b, 9: *εἰ δὴ τὸν ἀριθμὸν εἶεν ὀλίγοι πάμπαν οἱ τὴν ἀρετὴν ἔχοντες, τίνα δεῖ διελεῖν τὸν τρόπον; ἢ τὸ ὀλίγοι πρὸς τὸ ἔργον δεῖ σκοπεῖν, εἰ δυνατοὶ διοικεῖν τὴν πόλιν ἢ τοσοῦτοι τὸ πλῆθος ὥστ' εἶναι πόλιν ἐξ αὐτῶν.*

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[1] iv. 12, 1296, b, 15: δεῖ γὰρ κρεῖττον εἶναι τὸ βουλόμενον μέρος τῆς πόλεως τοῦ μὴ βουλομένου μένειν τὴν πολιτείαν. [So v. 9, 1309, b, 16.] ἔστι δὲ πᾶσα πόλις ἔκ τε τοῦ ποιοῦ καὶ τοῦ ποσοῦ. λέγω δὲ ποιὸν μὲν ἐλευθερίαν πλοῦτον παιδείαν εὐγένειαν, ποσὸν δὲ τὴν τοῦ πλήθους ὑπεροχήν. ἐνδέχεται δὲ τὸ μὲν ποιὸν ὑπάρχειν ἑτέρῳ μέρει τῆς πόλεως, . . . ἄλλῳ δὲ μέρει τὸ ποσὸν, οἷον πλείους τὸν ἀριθμὸν εἶναι τῶν γενναίων τοὺς ἀγεννεῖς ἢ τῶν πλουσίων τοὺς ἀπόρους, μὴ μέντοι τοσοῦτον ὑπερέχειν τῷ ποσῷ ὅσον λείπεσθαι τῷ ποιῷ. διὸ ταῦτα πρὸς ἄλληλα συγκριτέον. ὅπου μὲν οὖν ὑπερέχει τὸ τῶν ἀπόρων πλῆθος τὴν εἰρημένην ἀναλογίαν, ἐνταῦθα πέφυκεν εἶναι δημοκρατίαν, καὶ ἕκαστον εἶδος δημοκρατίας [organised or lawless, &c.] κατὰ τὴν ὑπεροχὴν τοῦ δήμου ἑκάστου [according as farmers or labourers, &c., preponderate] . . . ὅπου δὲ τὸ τῶν εὐπόρων καὶ γνωρίμων μᾶλλον ὑπερτείνει τῷ ποιῷ ἢ λείπεται τῷ ποσῷ, ἐνταῦθα δὲ ὀλιγαρχίαν, καὶ τῆς ὀλιγαρχίας τὸν αὐτὸν τρόπον ἕκαστον εἶδος κατὰ τὴν ὑπεροχὴν τοῦ ὀλιγαρχικοῦ πλήθους . . . ὅπου δὲ τὸ τῶν μέσων ὑπερτείνει πλῆθος ἢ συναμφοτέρων τῶν ἄκρων ἢ καὶ θατέρου μόνον, ἐνταῦθ' ἐνδέχεται πολιτείαν εἶναι μόνιμον.

[2] iii. 13, 1283, b, 36: Ought the legislator to look to the advantage of the better or of the greater number? τὸ δ' ὀρθὸν ληπτέον ἴσως· τὸ δ' ἴσως ὀρθὸν πρὸς τὸ τῆς πόλεως ὅλης συμφέρον καὶ πρὸς τὸ κοινὸν τὸ τῶν πολιτῶν. Hence all forms of constitution which do not aim at the general welfare are resolutely regarded as bad.

[3] Cf. *Ph. d. Gr.* i. p. 762 sq.

We have next to consider the case in which an individual or a minority possesses personal qualities so outstanding as wholly to outweigh all the others put together in ability and political importance. Would it not be unjust to place such persons on an equal footing with the others, whom in every respect they so far excel? Would it not be as ridiculous as to ask the lion to enter on an alliance of equal rights with the hare? If a State will suffer no political inequality, nothing is left for it but to exclude from its pale members who thus excel the common mass. In that sense, the institution of the Ostracism is not without a certain justification: it may, under certain circumstances, be indispensable to the safety of the democracy. In itself, however, it is wholly unjust, and, as a matter of fact, was abused for party ends. The true solution is to regard men of decisive superiority, not as mere members, but as the destined rulers of the State, not as under the law, but as themselves the law. They dwell among men like gods—you can as little rule over them or divide the power with them as you can divide the sovereignty of Jove. Only one attitude is possible towards them—namely, voluntary subjection. They are the natural, born kings;[1] they alone have a true and unconditional title to monarchy.[1] Such a monarchy Aristotle calls the best of all constitutions,[2] believing as he does that under it the well-being of the people is best secured; for he alone is king in this high sense who is endowed with every excellence and free from every mortal defect; nor will such a one seek his own advantage at the cost of his subjects, but, like a god, will lavish upon them benefits out of his own abundance.[3] In general, however, Aristotle is no eulogist of monarchy. The different kinds of it which he enumerates,[4] he regards as mere varieties of two fundamental forms—namely, military command for life and irresponsible sovereignty. The former, however, is applicable to the most diverse forms of constitution, and cannot, therefore, be the fundamental characteristic of any one of them. By a monarchical constitution, therefore, in the present inquiry, we can only mean irresponsible monarchy.[1] But against this form of government there are, according to Aristotle, many objections. That it may, under certain circumstances, be natural and justifiable he does not, indeed, deny. A people which is incapable of governing itself must needs have a governor. In such a case government by one is just and salutary.[2] If, on the other hand, the case be one of a people consisting of freemen who stand to one another in a relation of essential equality, personal rule contradicts the natural law, which assigns equal rights to equals; in such States the only just arrangement is that power should alternate; but where this is the case it is law, and not the will of a monarch, that rules.[3] If, further, it be said that government by the best man is better than government by the best laws, because the latter issue only universal decrees without regard to the peculiarities of particular cases, we must remember, in the first place, that even the individual must be guided by universal principles

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[1] iii. 10: In whom shall the sovereignty reside? In the masses, the rich, the best, in some distinguished citizen, or in a tyrant? After recounting all these different views, and dismissing the third and fourth with the remark that in that case the majority of the citizens would be excluded from all political rights, Aristotle continues, 1281. a, 34: ἀλλ' ἴσως φαίη τις ἂν τὸ κύριον ὅλως ἄνθρωπον εἶναι ἀλλὰ μὴ νόμον φαῦλον, ἔχοντά γε τὰ συμβαίνοντα πάθη περὶ τὴν ψυχήν. He suggests, indeed, an objection: ἂν οὖν ᾖ νόμος μὲν ὀλιγαρχικὸς δὲ ἢ δημοκρατικὸς, τί διοίσει περὶ τῶν ἠπορημένων; συμβήσεται γὰρ ὁμοίως [*i.e.* as in the case of the personal rule of the rich or of the people] τὰ λεχθέντα πρότερον. Nevertheless he arrives finally at the conclusion (1282, b, 1): ἡ δὲ πρώτη λεχθεῖσα ἀπορία ποιεῖ φανερὸν οὐδὲν οὕτως ἕτερον ὡς ὅτι δεῖ τοὺς νόμους εἶναι κυρίους κειμένους ὀρθῶς, τὸν ἄρχοντα δὲ, ἄν τε εἷς ἄν τε πλείους ὦσι, περὶ τούτων εἶναι κυρίους περὶ ὅσων ἐξαδυνατοῦσιν οἱ νόμοι λέγειν ἀκριβῶς διὰ τὸ μὴ ῥᾴδιον εἶναι καθόλου δηλῶσαι περὶ πάντων. But the character of the laws depends upon the constitution (πολιτεία in the wider sense explained p. 232 sq.): ἀλλὰ μὴν εἰ τοῦτο, δῆλον ὅτι τοὺς μὲν κατὰ τὰς ὀρθὰς πολιτείας ἀναγκαῖον εἶναι δικαίους, τοὺς δὲ κατὰ τὰς παρεκβεβηκυίας οὐ δικαίους. On the supremacy of law see p. 252, *infra*.

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[1] iii. 13, 1284, a, 3: *εἰ δέ τις ἐστιν εἷς τοσοῦτον διαφέρων κατ' ἀρετῆς ὑπερβολὴν, ἢ πλείους μὲν ἑνὸς μὴ μέντοι δυνατοὶ πλήρωμα παρασχέσθαι πόλεως, ὥστε μὴ συμβλητὴν εἶναι τὴν τῶν ἄλλων ἀρετὴν πάντων μηδὲ τὴν δύναμιν αὐτῶν τὴν πολιτικὴν πρὸς τὴν ἐκείνων, εἰ πλείους, εἰ δ' εἷς, τὴν ἐκείνου μόνον, οὐκέτι θετέον τούτους μέρος πόλεως· ἀδικήσονται γὰρ ἀξιούμενοι τῶν ἴσων, ἄνισοι τοσοῦτον κατ' ἀρετὴν ὄντες καὶ τὴν πολιτικὴν δύναμιν· ὥσπερ γὰρ θεὸν ἐν ἀνθρώποις εἰκὸς εἶναι τὸν τοιοῦτον· ὅθεν δῆλον ὅτι καὶ τὴν νομοθεσίαν ἀναγκαῖον εἶναι περὶ τοὺς ἴσους καὶ τῷ γένει καὶ τῇ δυνάμει. κατὰ δὲ τῶν τοιούτων οὐκ ἔστι νόμος· αὐτοὶ γάρ εἰσι νόμος.* And then follows the discussion in the text above, after which Aristotle continues, 1284, b, 25: *ἀλλ' ἐπὶ τῆς ἀρίστης πολιτείας ἔχει πολλὴν ἀπορίαν, οὐ κατὰ τῶν ἄλλων ἀγαθῶν τὴν ὑπεροχὴν, οἷον ἰσχύος καὶ πλούτου καὶ πολυφιλίας, ἀλλ' ἄν τις γένηται διαφέρων κατ' ἀρετὴν, τί χρὴ ποιεῖν; οὐ γὰρ δὴ φαῖεν ἂν δεῖν ἐκβάλλειν καὶ μεθιστάναι τὸν τοιοῦτον. ἀλλὰ μὴν οὐδ' ἄρχειν γε τοῦ τοιούτου· παραπλήσιον γὰρ κἂν εἰ τοῦ Διὸς ἄρχειν ἀξιοῖεν, μερίζοντες τὰς ἀρχάς. λείπεται τοίνυν, ὅπερ ἔοικε πεφυκέναι, πείθεσθαι τῷ τοιούτῳ πάντας ἀσμένως, ὥστε βασιλέας εἶναι τοὺς τοιούτους ἀϊδίους ἐν ταῖς πόλεσιν.* Similarly c. 17, 1288, a, 15 sqq.

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[1] Cf. iii. 17, 1281, b, 41 sqq.

[2] *Eth.* viii. 12, 1160, a, 35: τούτων δὲ [of the true forms of constitution] βελτίστη μὲν ἡ βασιλεία χειρίστη δ' ἡ τιμοκρατία.

[3] *Ibid.* b, 2: ὁ μὲν γὰρ τύραννος τὸ ἑαυτῷ συμφέρον σκοπεῖ, ὁ δὲ βασιλεὺς τὸ τῶν ἀρχομένων. οὐ γὰρ ἔστι βασιλεὺς ὁ μὴ αὐτάρκης καὶ πᾶσι τοῖς ἀγαθοῖς ὑπερέχων. ὁ δὲ τοιοῦτος οὐδενὸς προσδεῖται· τὰ ὠφέλιμα οὖν αὑτῷ μὲν οὐκ ἂν σκοποίη τοῖς δ' ἀρχομένοις· ὁ γὰρ μὴ τοιοῦτος κληρωτὸς ἄν τις εἴη βασιλεύς. Cf. p. 250, n. 1, *supra.*

[4] In the section περὶ βασιλείας, which Aristotle inserts iii. 14–17, and which, as it is closely connected with the preceding discussion, we must here notice. Besides true monarchy he there enumerates five kinds of monarchical rule: (1) that of the heroic age; (2) that which is common among barbarians; (3) the rule of the so-called Æsymnetæ or elective princes; (4) the Spartan; (5) unlimited monarchy (παμβασιλεία, c. 16 1287 a, 8). The first of these kinds, he remarks (c. 14, 1285, b, 3 sqq., 20 sqq., a, 7, 14), was rather a union of certain offices, judicial, priestly, military; similarly, the Spartan was an hereditary command. The monarchy of the barbarians, on the other hand, is an hereditary mastership (ἀρχὴ δεσποτικὴ—but the government of slaves is despotic, that of freemen political; *Polit.* iii. 4, 1277, a, 33, b, 7, c. 6, 1278, b, 32, 1279, a, 8), to which, however, the subjects voluntarily submit, and which is limited by traditional usage (iii. 14, 1285, a, 16, b, 23). Elective monarchy is a dictatorship either for life or for a definite time or object. (On the αἱρετὴ τυραννὶς *v. ibid.* a, 29 sqq. b, 25.) Only in an irresponsible monarchy is an individual actually master of a whole people; it is a kind of magnified domestic rule: ὥσπερ γὰρ ἡ οἰκονομικὴ βασιλεία τις οἰκίας ἐστὶν, οὕτως ἡ βασιλεία πόλεως καὶ ἔθνους ἑνὸς ἢ πλειόνων οἰκονουία (*ibid.* b, 29 sqq.).

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[1] iii. 15, 1286, b, 33–1287, a, 7, c. 16 *init.*

[2] iii. 17 *init.*, after stating the objections to monarchy Aristotle continues: ἀλλ' ἴσως ταῦτ' ἐπὶ μέν τινων ἔχει τὸν τρόπον τοῦτον, ἐπὶ δέ τινων οὐχ οὕτως. ἔστι γάρ τι φύσει δεσποστὸν καὶ ἄλλο βασιλευτὸν καὶ ἄλλο πολιτικὸν καὶ δίκαιον καὶ συμφέρον. c. 14, 1285, a, 19: monarchical power is as unlimited among some barbarian peoples as tyrannical. Nevertheless it is legitimate (κατὰ νόμον καὶ πατρική); διὰ γὰρ τὸ δουλικώτεροι εἶναι τὰ ἤθη φύσει οἱ μὲν βάρβαροι τῶν Ἑλλήνων, οἱ δὲ περὶ τὴν Ἀσίαν τῶν περὶ τὴν Εὐρώπην, ὑπομένουσι τὴν δεσποτικὴν ἀρχὴν οὐδὲν δυσχεραίνοντες. Cf. p. 239, n. 1, *sup.*

[3] iii. 16, 1287, a, 8 sqq. cf. c. 17, 1288, a, 12, c. 15, 1286, a, 36.

of government, and that it is better that these should be administered in their purity than that they should be obscured by distorting influences. Law is free from such influences, whereas every human soul is exposed to the disturbing influence of passion; law is reason without desire. Where law reigns, God reigns incarnate; where the individual, the beast reigns as well.[1] If this advantage seems to be again outweighed by the inability of law to take account of particular cases as the individual governor can, this is not decisive. It follows, indeed, from it that the constitution must admit of an improvement upon the laws[2]—that the cases which the law does not take account of must be submitted to authoritative judges and magistrates, and that provision should be made by means of a special education for a constant supply of men, to whom these functions may be entrusted; but it does not by any means follow that the highest authority in the State should reside in an individual. On the contrary, the more undeniable it is that many are superior to one, that the latter is more liable to be fooled by passion and corrupted by desire than a multitude, and that even the monarch cannot dispense with a multitude of servants and assistants, the wiser it is to commit this authority into the hands of the whole people and cause it to be exercised by them, rather than by an individual[1] —assuming always that the people consist of free and capable men.[2] Furthermore, we cannot overlook the fact that use and custom are more powerful than written laws, and that government by these at any rate has the advantage over government by a man, even although we deny this of written law.[3] A monarch, finally (and this argument weighs heavily with Aristotle), will almost inevitably desire to make his sovereignty hereditary in his family; and what guarantee have we in such a case that it will not pass into the most unworthy hands, to the ruin of the whole people?[1] On all these grounds Aristotle declares it to be better that the State be ruled by a capable body of citizens than by an individual: in other words, he gives 'aristocracy' the preference over 'monarchy.'[2] Only in two cases does he regard the latter, as we have seen, as justified: when a people stands so low as to be incapable of self-government, or when an individual stands so pre-eminently out over all others that they are forced to revere him as their natural ruler. Of the former, he could not fail to find many instances in actual experience; he himself, for instance, explains the Asiatic despotisms on this principle. Of the latter, neither his own time nor the whole history of his nation afforded him any example corresponding even remotely to the description, except that of his own pupil Alexander.[3] The thought naturally suggests itself that he had him in his mind when he describes the prince whose personal superiority makes him a born ruler.[4] Conversely, we can imagine that he used his ideal of the true king (if he had sketched it at so early a period as his residence in Macedonia[5]) as a means of directing to beneficial ends a power which would endure no opposition and no limitation, and of saying to a prince whose egotism would admit no title by the side of his own that absolute monarchy can only be merited by an equally absolute moral greatness. These speculations, however, are delusive. Aristotle himself remarks that no one any longer exists so far superior to all others as the true king must needs be.[1] Moreover, throughout the *Politics* he accepts the presuppositions of Greek national and political life, and it is not likely that in his theory of monarchy he should have had the Macedonian Empire, whose origin, like that of other peoples, he elsewhere traces to definite historical sources,[2] present to his thought.[3] It is better to explain

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[1] iii. 15, 1286, a, 7–20, c. 16, 1287, a, 28: *ὁ μὲν οὖν τὸν νόμον κελεύων ἄρχειν δοκεῖ κελεύειν ἄρχειν τὸν θεὸν καὶ τὸν νοῦν μόνους, ὁ δ' ἄνθρωπον κελεύων προστίθησι καὶ θηρίον. ἥ τε γὰρ ἐπιθυμία τοιοῦτον* [perhaps better: *τοιοῦτον ὂν*] *καὶ ὁ θυμὸς ἄρχοντας διαστρέφει καὶ τοὺς ἀρίστους ἄνδρας. διόπερ ἄνευ ὀρέξεως νοῦς ὁ νόμος ἐστίν.* Cf. p. 248 sq. vi. 4, 1318, b, 39: *ἡ γὰρ ἐξουσία τοῦ πράττειν ὅ τι ἂν ἐθέλῃ τις οὐ δύναται φυλάττειν τὸ ἐν ἑκάστῳ τῶν ἀνθρώπων φαῦλον.* *Eth.* v. 10, 1134, a, 35: *διὸ οὐκ ἐῶμεν ἄρχειν ἄνθρωπον, ἀλλὰ τὸν λόγον* [*al. νόμον*], *ὅτι ἑαυτῷ τοῦτο ποιεῖ καὶ γίνεται τύραννος.*

[2] Aristotle touches on this point, ii. 8, 1268, b, 31 sqq. He there says that neither the written nor the unwritten laws can be unchangeable. Government, like all other arts and sciences, reaches perfection gradually. From the earliest inhabitants of a country, whether they be autochthonous or a remnant of a more ancient population, little insight is to be expected: it would be absurd, therefore, to be bound by their precedents; written laws, moreover, cannot embrace every individual case. Nevertheless great prudence is required in changing the laws; the authority of the law rests entirely on use and wont, and this ought not to be infringed unnecessarily; men ought to put up with small anomalies rather than injure the authority of the law and the government and accustom the citizens to regard legislative changes lightly.

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[1] C. 15, 1286, a, 20–b, 1, c. 16, 1287, a, 20–b, 35; cf. p. 246, n. 2, *supra*. *Rhet.* i. 1, 1354, a, 31: it is best that as much as possible cases should be decided by law and withdrawn from judicial consideration; for (1) true insight is more likely to be found in the individual or the select few who make a law than in the many who have to apply it; (2) laws are the product of mature deliberation, judicial decisions of the moment; (3) the most important consideration of all: the legislator establishes universal principles for the future, law courts and popular assemblies decide upon a special case, in which inclination, aversion and private advantage not unfrequently play a part. To these, therefore, we must leave, when possible, only such questions as refer to matters of fact—past or future.

[2] *Ibid.* 1286, a, 35: *ἔστω δὲ τὸ πλῆθος οἱ ἐλεύθεροι, μηδὲν παρὰ τὸν νόμον πράττοντες, ἀλλ' ἢ περὶ ὧν ἐκλείπειν ἀναγκαῖον αὐτόν.* We are dealing with *ἀγαθοὶ καὶ ἄνδρες καὶ πολῖται.* To the further objection that in large masses factions commonly arise, the reply is made: *ὅτι σπουδαῖοι τὴν ψυχήν, ὥσπερ κἀκεῖνος ὁ εἷς.*

[3] c. 16, 1287, b, 5.

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[1] c. 15, 1286, b, 22.

[2] c. 15, 1286, b, 3: *εἰ δὴ τὴν μὲν τῶν πλειόνων ἀρχὴν ἀγαθῶν δ᾽ ἀνδρῶν πάντων ἀριστοκρατίαν θετέον, τὴν δὲ τοῦ ἑνὸς βασιλείαν, αἱρετωτερον ἂν εἴη πόλεσιν ἀριστοκρατία βασιλείας.* Accordingly early monarchies have changed into republics as the number of capable people in the cities has increased.

[3] Pericles alone might perhaps have been mentioned alongside of him; he was, however, not a monarch, but a popular leader, and in *Polit.* ii. 12, 1274, a, 5 sqq. is treated merely as a demagogue.

[4] See ONCKEN, *Staatsl. d. Arist.* ii. 268 sq.

[5] He dedicated a treatise to Alexander *περὶ βασιλείας*; see p. 60, n. 1.

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[1] v. 10, 1313, a, 3: *οὐ γίγνονται δ' ἔτι βασιλεῖαι νῦν, ἀλλ' ἄνπερ γίγνωνται, μοναρχίαι καὶ τυραννίδες μᾶλλον, διὰ τὸ τὴν βασιλείαν ἑκούσιον μὲν ἀρχὴν εἶναι, μειζόνων δὲ κυρίαν, πολλοὺς δ' εἶναι τοὺς ὁμοίους, καὶ μηδένα διαφέροντα τοσοῦτον ὥστε ἀπαρτίζειν πρὸς τὸ μέγεθος καὶ τὸ ἀξίωμα τῆς ἀρχῆς. ὥστε διὰ μὲν τοῦτο ἑκόντες οὐχ ὑπομένουσιν· ἂν δὲ δι' ἀπάτης ἄρξῃ τις ἢ βίας, ἤδη δοκεῖ τοῦτο εἶναι τυραννίς.* This does not, indeed, primarily refer to the appearance in a state previously monarchical of a prince whose personality corresponds to that of the ideal king, but to the introduction of monarchy in states which hitherto have had another form of constitution; the words *μηδένα . . . ἀρχῆς* seem, however, to show that Aristotle in depicting the true king was not thinking of contemporary examples. Had he desired historical illustrations he would have preferred to look for them in mythical times—perhaps in a Theseus—seeing that in iii. 15, 1286, a, 8 he supposes that monarchy is the oldest form of constitution, perhaps because the few capable people in antiquity stood more prominently out above the common man than in later times.

[2] *Polit.* v. 10, 1310, b, 39, where the Macedonian kings are mentioned along with the Spartan and Molossian as owing their position to their services as founders of states.

[3] Even although the passage vii. 7 (see *infra*) were taken to mean that the Greek nation now that it has become politically united (strictly speaking it had not received *μίαν πολιτείαν* even from Philip and Alexander) is able to rule the world, and not merely that 'it would be able to rule the world if it were politically united,' it could not be quoted in proof of the view that Aristotle (as ONCKEN, *Staatsl. d.*

his views on this subject upon purely scientific principles. Among the different possible cases in which virtue may be the basis of political life, he had to take account of that in which the virtue resides primarily in the prince, and in which his spirit, passing into the community, confers upon it that prowess which he himself possesses. It would certainly not be difficult to prove from Aristotle's own statements about the weakness of human nature and the defects of absolute monarchy that such a case can never actually occur, that even the greatest and ablest man differs from a god, and that no personal greatness in a ruler can compensate for the legally organised co-operation of a free people, or can constitute a claim to unlimited command over free men. Determined, however, though Aristotle usually is in his hostility to all false idealism, and careful though he is in the *Politics* to keep clearly in view the conditions of reality, he has here been unable wholly to rid himself of idealistic bias. He admits that the advent of a man who has a natural claim to sole supremacy is a rare exception; but he does not regard it as an impossibility, and accordingly considers it his duty not to overlook this case in the development of his theory.[1]

After thus discussing the principles of his division of states into their various kinds, Aristotle next proceeds to investigate the separate forms themselves, beginning with the best, and passing from it to the

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Arist. i. 21, supposes) saw in its unity under the Macedonian sway the fulfilment of his people's destiny. Cf. SUSEMIHL, *Jahrb. f. Philol.* ciii. 134 sq. HENKEL, *Studien*, &c., p. 97.

[1] SUSEMIHL, *Jahresber. über class. Alterthumsw.*, 1875, p. 377, takes the same view.

less perfect examples. The examination of the 'Best State,' however, as already observed, is incomplete. We must therefore be content to notice the section of it which we have before us.

5. *The Best State* [1]

For a perfect society certain natural conditions are in the first place necessary; for just as each art requires a suitable material to work upon, so also does political science. A community cannot, any more than an individual, dispense with external equipment as the condition of complete happiness.[2] A State, in the first place, must be neither too small nor too great: since if it is too small it will lack independence; if too great, unity. The true measure of its proportions is that the number of the citizens should, on the one hand, suffice for all wants, and, on the other, be sufficiently within a compass to keep the individual members intimately acquainted with one another and with the government.[1] Aristotle further desires a fruitful country of sufficient extent, which itself supplies all the necessities of life without leading to luxury, and which is easily defended and suitable for purposes of commerce. In this last respect he defends, as against Plato,[2] a maritime situation, prescribing at the same time means of avoiding the inconveniences which it may bring with it.[3] More important still, however, is the natural character of the people. A healthy community can only exist where the people combine the complementary qualities of spirit and intellect. Aristotle agrees with Plato in holding that this is so among the Greeks alone. The Northern barbarians, on the other hand, with their untamed spirit, may attain to freedom, but not to political existence; while the Asiatics, with all their art and talent, are cowards, and destined by nature to be slaves.[1] The Greeks alone are capable of political activity, for they alone are endowed with that sense of moral proportion which fortifies them on all sides from extremes of excess or defect. The conditions of all civil and moral life Aristotle, in a true Greek spirit, finds to exist only in his own people. Here, also, where it is more justifiable in view of the intellectual state of the world at that time, we have the same national pride which has already presented itself in a more repulsive aspect in the discussion upon Slavery.

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[1] It has been frequently denied that Aristotle intended to depict an Ideal State (see HILDENBRAND, *ibid.* p. 427 sqq. HENKEL, *ibid.* 74); his own declarations, however, as is gradually coming to be generally admitted, leave no doubt on this head. Cf. *e.g.* iii. 18 *fin.* vii. 1 *init.* c. 2, 1324, a, 18, 23, c. 4 *init.* c. 9, 1328, b, 33, c. 13 *init.* c. 15 *init.* iv. 2, 1289, a, 30. The subject of the discussion in *Polit.* vii. and viii. is described by all these passages without exception as the ἀρίστη πολιτεία, the πόλις μέλλουσα κατ' εὐχὴν συνεστάναι, and Aristotle expressly says that in depicting such a State many assumptions must be made, but these ought not to transcend the limits of possibility. This, however, is precisely what Plato also had asserted of the presuppositions of his ideal state (*Rep.* v. 473, c. vi. 499 C, D, 502 C; see *Ph. d. Gr.* i. p. 776), and so small is the difference in this respect between them that, while Plato declares μὴ παντάπασιν ἡμᾶς εὐχὰς εἰρηκέναι, ἀλλὰ χαλεπὰ μὲν δυνατὰ δέ πη (*Rep.* vii, 540 D), Aristotle says, conversely (vii. 4, 1325, b, 38, and almost in the same words ii. 6, 1265, a, 17): δεῖ πολλὰ προϋποτεθεῖσθαι καθάπερ εὐχομένους, εἶναι μέντοι μηθὲν τούτων ἀδύνατον. Aristotle certainly declares the most peculiar of Plato's proposals to be unsuitable and impracticable; he is moreover not so entranced with his Ideal State as to deny, as Plato does, to any other the name of State and to permit to the philosopher alone a share in its administration; he demands of political science that it should study also the less perfect conditions of actuality and ascertain what is best in the circumstances; but at the same time he doubted as little as Plato that *Politics* ought also to sketch the ideal of a perfect State.

[2] *Polit.* vii. 4 *init.*

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[1] *Ibid.* 1326, b, 5 sqq. where at the end Aristotle says: *δῆλον τοίνυν ὡς οὗτός ἐστι πόλεως ὅρος ἄριστος, ἡ μεγίστη τοῦ πλήθους ὑπερβολὴ πρὸς αὐτάρκειαν ζωῆς εὐσύνοπτος.* At the same time he maintains that the general criterion of the size of a state is, not the *πλῆθος*, but the *δύναμις* of its population, that the greatest is that which is best capable of answering the peculiar ends of the state, and that accordingly we have to take into account the number, not of the population, but of the citizens proper: *οὐ γὰρ ταὐτὸν μεγάλη τε πόλις καὶ πολυάνθρωπος.* Cf. *Eth.* ix. 10, 1170, b, 31: *οὔτε γὰρ ἐκ δέκα ἀνθρώπων γένοιτ' ἂν πόλις οὔτ' ἐκ δέκα μυριάδων ἔτι πόλις ἐστίν*—we shall not consider the latter too low an estimate if we have in view the Greek states in which all full citizens share directly in the government (cf. *Polit. ibid.* 1326, b, 6).

[2] *Laws*, iv. *init.*; this passage is, undoubtedly present to Aristotle's mind, although he makes no mention either of it or of its author.

[3] *Polit.* vii. 5.

So far we have spoken only of such things as depend upon chance. The most important of all, however, and that which constitutes the essential element in the happiness of the state, is the virtue of the citizens, which is no longer a matter of chance, but of free will and insight.[2] Here, therefore, we must call upon political science to be our guide. In the first place we shall have to determine by its aid how best to take advantage of the external circumstances. Under this head comes all that Aristotle says of the division of the land, and of the site and structure of the city. With reference to the first of these he proposes[1] that a portion of the whole territory be set apart as state property, from the produce of which the cost of religious services and public banquets may be defrayed, and that of what remains each citizen should receive two portions, one in the neighbourhood of the city, another towards the boundary of its territory.[2] He requires for the city not only a healthy site and suitable plan of structure, but also fortifications, deprecating upon valid grounds[3] the contempt with which Plato[4] and the Spartans regarded the latter. Of much greater importance, however, are the means that must be adopted to secure the personal capacity of the citizens. These will not in the most perfect sort of state consist merely in educating men with a view to a particular form of constitution and to their own particular aims, nor again in making them efficient as a community, although imperfect as individuals; on the contrary, since the virtue of citizens here coincides with the virtue of man universally, care must be taken to make each and every citizen a capable man, and to fit all for taking part in the government of the state.[5] But for this end three things are necessary. The ultimate aim of human existence is the education of the reason.[6] As the higher is always preceded by the lower, the end by the means, in the order of time,[7] so the education of the reason must be preceded by that of the irrational element of the soul—namely, desire—and the training of desire by that of the body. We must therefore have first a physical, secondly a moral, and lastly a philosophic training; and just as the nurture of the body must subserve the soul, so must the education of the appetitive part subserve the reason.[1]

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[1] *Polit.* vii. 7, where he says of the Greeks (1327, b, 29): *τὸ δὲ τῶν Ἑλλήνων γένος ὥσπερ μεσεύει κατὰ τοὺς τόπους, οὕτως ἀμφοῖν μετέχει, καὶ γὰρ ἔνθυμον καὶ διανοητικόν ἐστιν, διόπερ ἐλεύθερόν τε διατελεῖ καὶ μάλιστα πολιτευόμενον καὶ δυνάμενον ἄρχειν πάντων μιᾶς τυγχάνον πολιτείας* (on which see p. 256, n. 1); cf. PLATO, *Rep.* iv. 435 E, ii. 374 E sqq. to the latter of which passages Aristotle himself refers.

[2] *Polit.* vii. 13, 1332, a, 29: *διὸ κατ' εὐχὴν εὐχόμεθα τὴν τῆς πόλεως σύστασιν, ὧν ἡ τύχη κυρία· κυρίαν γὰρ αὐτὴν ὑπάρχειν τίθεμεν· τὸ δὲ σπουδαίαν εἶναι τὴν πόλιν οὐκέτι τύχης ἔργον, ἀλλ' ἐπιστήμης καὶ προαιρέσεως.* Cf. c. 1, 1323, b, 13, and the whole chapter.

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[1] *Ibid.* c. 10, 1329, b, 36 sqq.

[2] There is a similar plan in PLATO, *Laws*, 745 C sqq.; Aristotle, however, in *Polit.* ii. 6, 1265, b, 24, considers Plato's arrangement, merely on account of a trifling difference, highly objectionable.

[3] *Polit.* vii. 11, 12.

[4] *Laws*, vi. 778 D sq.

[5] See vol. ii. p. 209, n. 2, *sup.*

[6] Cf. p. 142 sq. and *Polit.* vii. 15, 1334, b, 14: *ὁ δὲ λόγος ἡμῖν καὶ ὁ νοῦς τῆς φύσεως τέλος. ὥστε πρὸς τούτους τὴν γένεσιν καὶ τὴν τῶν ἐθῶν δεῖ παρασκευάζειν μελέτην.*

[7] Cf. vol. ii. p. 28, n. 3, *supra.*

Aristotle, like Plato, demands that state interference with the life of the individual should begin much earlier than is customary in our days, and that it should regulate even the procreation of children. He does not, indeed, as has been already shown,[2] go so far as to make this act the mere fulfilment of official orders, as Plato had done in the *Republic*. Nevertheless he also would have laws to regulate the age at which marriage should take place and children be begotten,[3] careful regard being paid to the consequences involved not only to the children in relation to their parents, but to the parents in relation to one another. The law must even determine at what season of the year and during what winds procreation may take place. It must prescribe the proper course of treatment for pregnant women, procure the exposure of deformed children, and regulate the number of births. For those children who are superfluous, or whose parents are either too young or too old, Aristotle, sharing as he does the indifference of ancients in general as to such immoral practices, roundly recommends abortion, justifying it on the ground that what has as yet no life, has no rights.[1] From the control of procreation Aristotle passes to education, which he regards as beginning with the first moment of life, and extending to the last.[2] From the earliest years of its life care must be taken to secure for the child, not only suitable exercise and physical training, but also games and stories as a preparation for its moral education. Children must be left as little as possible to the society of slaves, and kept altogether out of the way of improper conversation and pictures, which, indeed, ought not to be tolerated at all.[3] Their public education begins at the age of seven, and lasts till twenty-one.[4] Aristotle founds his argument in favour of state-regulated education upon its importance for the communal life, for it is the moral quality of the citizens which supports the fabric and determines the character of the commonwealth; and if a man would practise virtue in the state, he must begin early to acquire it.[5] As in the best state all must be equally capable, as the whole state has one common object in view, and as no man belongs to himself, but all belong to the state, this education must be wholly in common and must be regulated in every detail with a view to the wants of the whole.[1] Its one object, therefore, must be to train up men who shall know how to practise the virtue of freemen. The same principle will determine the subjects of instruction and the method of their treatment. Thus of the arts which serve the wants of life, the future citizens shall learn only those which are worthy of a free man, and which vulgarise neither mind nor body,[2] such as reading, writing, and drawing, the last of which, besides its practical utility, possesses the higher merit of training the eye for the study of physical beauty.[3] But even among those arts which belong to a liberal education in the stricter sense, there is an essential difference between those which we learn for the sake of their practical application and those which we learn for their own sake. The former have their end outside of themselves in something attained by their means, while the latter find it within themselves, in the high and satisfying activities which their own exercise affords. That the latter are the higher, that they are the only truly liberal arts, hardly requires proof in Aristotle's view.[1] As, moreover, of the two chief branches of education among the Greeks—music and gymnastics—the latter is practised more as an aid to soldierly efficiency, while the former directly ministers to mental culture, it is not wonderful that he should disapprove of that one-sided preference for physical training which was the basis of the Spartan system of education. He remarks that where physical exercise and endurance are made so exclusively an object, a ferocity is produced which differs widely from true bravery; nor do these means suffice for the attainment even of the object sought—viz. superiority in war: for since Sparta had

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[1] *Polit.* vii. 15, 1334, b, 20: ὥσπερ δὲ τὸ σῶμα πρότερον τῇ γενέσει τῆς ψυχῆς, οὕτω καὶ τὸ ἄλογον τοῦ λόγον ἔχοντος . . . διὸ πρῶτον μὲν τοῦ σώματος τὴν ἐπιμέλειαν ἀναγκαῖον προτέραν εἶναι ἢ τὴν τῆς ψυχῆς, ἔπειτα τὴν τῆς ὀρέξεως, ἕνεκα μέντοι τοῦ νοῦ τὴν τῆς ὀρέξεως, τὴν δὲ τοῦ σώματος τῆς ψυχῆς. Cf. viii. 3 *fin.* On reason and desire, *v.* vol. ii. pp. 112 sq., 155 sq. *supra.*

[2] In the section on the Family, *supra.*

[3] Marriage ought to take place with men about the age of thirty-seven, with women about eighteen; procreation ought not to be continued beyond the fifty-fourth or fifty-fifth year of a man's age.

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[1] All this is treated of in *Polit.* vii. 16.

[2] With what follows cf. LEFMANN, *De Arist. Hom. Educatione Princ.* Berl. 1864; BIEHL, *Die Erziehungslehre d. Arist.* Gymn.-Progr. Innsbruck, 1877. For other literature on the subject, see UEBERWEG, *Hist. of Phil.* vol. i. p. 172 Eng. Tr.

[3] vii. 17.

[4] *Ibid.* 1336, b, 35 sqq.

[5] *Polit.* viii. 1 *init.*, where *inter alia*: τὸ γὰρ ἦθος τῆς πολιτείας ἑκάστης τὸ οἰκεῖον καὶ φυλάττειν εἴωθε τὴν πολιτείαν καὶ καθίστησιν ἐξ ἀρχῆς, οἷον τὸ μὲν δημοκρατικὸν δημοκρατίαν, τὸ δ' ὀλιγαρχικὸν ὀλιγαρχίαν· ἀεὶ δὲ τὸ βέλτιστον ἦθος βελτίονος αἴτιον πολιτείας. Cf. v. 9, 1310, a, 12, and vol. ii. p. 209, n. 2, *supra*.

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[1] *Ibid.* 1337, a, 21 sqq.; cf. p. 209. n. 2. Aristotle recognises, indeed (*Eth.* x. 10, 1180, b, 7), that private education may be able more readily to adapt itself to the needs of the pupil, but replies that public education does not necessarily neglect these, provided that it is entrusted to the proper hands.

[2] viii. 2, 1337, b, 4: *ὅτι μὲν οὖν τὰ ἀναγκαῖα δεῖ διδάσκεσθαι τῶν χρησίμων, οὐκ ἄδηλον· ὅτι δὲ οὐ πάντα, διῃρημένων τῶν τε ἐλευθέρων ἔργων καὶ τῶν ἀνελευθέρων, φανερὸν ὅτι τῶν τοιούτων δεῖ μετέχειν ὅσα τῶν χρησίμων ποιήσει τὸν μετέχοντα μὴ βάναυσον. βάναυσον δ' ἔργον εἶναι δεῖ τοῦτο νομίζειν καὶ τέχνην ταύτην καὶ μάθησιν, ὅσαι πρὸς τὰς χρήσεις καὶ τὰς πράξεις τὰς τῆς ἀρετῆς ἄχρηστον ἀπεργάζονται τὸ σῶμα τῶν ἐλευθέρων ἢ τὴν ψυχὴν ἢ τὴν διάνοιαν.* Aristotle agrees with Plato (cf. *Ph. d. Gr.* i. p. 754) in regarding this as the effect of trades (*μισθαρνικαὶ ἐργασίαι*) generally; they leave thought unexercised and generate low views. These, however, are to be found even with the higher activities (music, gymnastics, &c.) if these are pursued in a one-sided way as a vocation. There are many things, finally, that a man may do for himself or a friend, or for some good purpose, but not in the service of strangers.

[3] viii. 3, 1337, b, 23, 1338, a, 13 sqq. *Ibid.* l. 37: among the useful arts are many which must be learned, not merely for the sake of their utility, but also as aids to further culture. Such are *γραμματικὴ* and *γραφική*. The chief value of the latter is *ὅτι ποιεῖ θεωρητικὸν τοῦ περὶ τὰ σώματα κάλλους.*

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[1] Besides what is said *sup.* ii. p. 141 sqq., on the superiority of theory to practice, and, p. 209 sq., on peaceful and warlike avocations, cf. on this head vii. 14, 1333, a, 35: [*ἀνάγκη*] *πόλεμον μὲν εἰρήνης χάριν, ἀσχολίαν δὲ σχολῆς, τὰ δ' ἀναγκαῖα καὶ χρήσιμα τῶν καλῶν ἕνεκεν.* Similarly c. 15, 1334, a, 14, viii. 3, 1337, b, 28 (on music): *νῦν μὲν γὰρ ὡς ἡδονῆς χάριν οἱ πλεῖστοι μετέχουσιν αὐτῆς· οἱ δ' ἐξ ἀρχῆς ἔταξαν ἐν παιδείᾳ, διὰ τὸ τὴν φύσιν αὐτὴν ζητεῖν . . . μὴ μόνον ἀσχολεῖν ὀρθῶς ἀλλὰ καὶ σχολάζειν δύνασθαι καλῶς . . . εἰ γὰρ ἄμφω μὲν δεῖ, μᾶλλον δὲ αἱρετὸν τὸ σχολάζειν τῆς ἀσχολίας, καὶ ὅλως ζητητέον τί ποιοῦντας δεῖ σχολάζειν.* Mere amusement (*παιδιὰ*) is not in itself an end but only a means of recreation, and accordingly more necessary in *ἀσχολία* than in *σχολή*. The latter consists in the attainment of the end, and therefore results immediately in pleasure and happiness; the former is effort after an end which is not yet attained. *ὥστε φανερὸν ὅτι δεῖ καὶ πρὸς τὴν ἐν τῇ διαγωγῇ σχολὴν μανθάνειν ἄττα καὶ παιδεύεσθαι, καὶ ταῦτα μὲν τὰ παιδεύματα καὶ ταύτας τὰς μαθήσεις ἑαυτῶν εἶναι χάριν, τὰς δὲ πρὸς τὴν ἀσχολίαν ὡς ἀναγκαίας καὶ χάριν ἄλλων. . . . ὅτι μὲν τοίνυν ἐστὶ παιδεία τις ἣν οὐχ ὡς χρησίμην παιδευτέον τοὺς υἱεῖς οὐδ' ὡς ἀναγκαίαν, ἀλλ' ὡς ἐλευθέριον καὶ καλήν, φανερόν ἐστιν.*

ceased to have a monopoly of gymnastic training, she had lost her superiority over other states. Aristotle desires, therefore, to see gymnastics duly subordinated to the true end of all education, and to prevent the more exhausting exercises from being practised before the body has acquired sufficient strength and the mind has received a counterbalancing bias from other studies.[1]

Turning to music, by which Aristotle means in the first instance music in the narrower sense of the word, in which it does not include poetry,[2] we have to distinguish between several uses to which it may be put.[3] It serves for purposes of pleasure and of moral education; it soothes the spirit,[4] and furnishes an enjoyable occupation.[5] In the education of youth, however, its ethical effect is the main thing. The young are too immature to practise it as an independent occupation.[1] It is well adapted, indeed, for amusement and recreation, since it affords innocent pleasure; but pleasure may not be made an end in learning, and to limit music to this would be to assign too low a place to it.[2] All the more important, on the other hand, is its influence upon character. Music more than any other art represents moral states and qualities: anger, gentleness, bravery, modesty, and every variety of virtue, vice and passion find here their expression. This representation awakens kindred feelings in the souls of the hearers.[3] We accustom ourselves to be pleased or pained by certain things, and the feelings which we have accustomed ourselves to entertain towards the imitation we are likely to entertain also towards the reality in life. But virtue consists just in this: in feeling pleasure in what is good, pain in what is bad. Music, therefore, is one of the most important means of education, all the more so because its effect upon the

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[1] viii. 4, especially 1338, b, 17: *οὔτε γὰρ ἐν τοῖς ἄλλοις ζῴοις οὔτ' ἐπὶ τῶν ἐθνων ὁρῶμεν τὴν ἀνδρίαν ἀκολουθοῦσαν τοῖς ἀγριωτάτοις, ἀλλὰ μᾶλλον τοῖς ἡμερωτέροις καὶ λεοντώδεσιν ἤθεσιν . . . ὥστε τὸ καλὸν ἀλλ' οὐ τὸ θηριῶδες δεῖ πρωταγωνιστεῖν· οὐ γὰρ λύκος οὐδὲ τῶν ἄλλων θηρίων τι ἀγωνίσαιτο ἂν οὐθένα καλὸν κίνδυνον, ἀλλὰ μᾶλλον ἀνὴρ ἀγαθός. οἱ δὲ λίαν εἰς ταῦτα ἀνέντες τοὺς παῖδας, καὶ τῶν ἀναγκαίων ἀπαιδαγωγήτους ποιήσαντες, βαναύσους κατεργάζονται κατά γε τὸ ἀληθὲς, πρὸς ἓν τε μόνον ἔργον τῇ πολιτικῇ χρησίμους ποιήσαντες, καὶ πρὸς τοῦτο χεῖρον, ὥς φησιν ὁ λόγος, ἑτέρων.*

[2] PLATO, on the other hand, in the section of the *Rep.* upon musical education, deals chiefly with poetry–its form and content. See *Ph. d. Gr.* i. pp. 773, 779 sq.

[3] *Polit.* viii. 5, 1339, b, 11, c 7, 1341, b, 36.

[4] By the *κάθαρσις* which is effected, not only by sacred music (*μέλη ἐξοργιάζοντα*), but by all music; *Polit.* viii. 1342, a, 4 sqq. For the fuller discussion of *κάθαρσις*, see ch. xv. *infra.*

[5] Διαγωγή. By this word Aristotle means generally an activity which has its end in itself, and is therefore necessarily accompanied by pleasure, like every activity which is complete in itself (see p. 146 sq. *sup.*). He therefore makes a distinction between those arts which serve human need and those which serve διαγωγὴ (*Metaph.* i. 1 sq. 981, b, 17, 982, b, 22), comprehending under the latter all kinds of enjoyment, both nobler and humbler. In this wider sense, mere amusements can be classed as διαγωγὴ (as in *Eth.* iv. 14 *init.*

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x. 6, 1176, b, 12 sqq.; *Polit.* viii. 5, 1339, b, 22). In the narrower sense, however, Aristotle uses this expression for the higher activities of the kind indicated (διαγωγὴ ἐλευθέριος, *Polit.* viii. 5, 1339, b, 5). Accordingly he calls, *Eth.* ix. 11, 1171, b, 12, the society of friends, or *Metaph.* xii. 7 (p. 398, n. 5, *supra*), *Eth.* x. 7, 1177, a, 25, the active thought of the divine and the human spirit διαγωγή. In *Polit.* vii. 15, 1334, a, 16, in the discussion touched upon on p. 209 sq., he mentions σχολὴ and διαγωγὴ together, and in the passage before us, c. 5, 1339, a, 25, 29, b, 13, c. 7, 1341, b, 40, he distinguishes the application of music to purposes of παιδιὰ and ἀνάπαυσις from that πρὸς διαγωγὴν καὶ πρὸς φρόνησιν, saying (1339, b, 17) of the latter that τὸ καλὸν and ἡδονὴ are united in it. Cf. BONITZ, *Arist. Metaph.* ii. 45; *Ind. Ar.* 178, a, 33; SCHWEGLER, *Arist. Metaph.* iii. 19 sq.

[1] viii. 5, 1339, a, 29: they have no claim to διαγωγή: οὐθενὶ γὰρ ἀτελεῖ προσήκει τέλος.

[2] *Ibid.* 1339, a, 26–41, b, 14–31, 42 sqq.

[3] ἀκροώμενοι τῶν μιμήσεων γίγνονται πάντες συμπαθεῖς.

young is in no small degree strengthened by the pleasure that accompanies it.[1] These considerations determine the rules which Aristotle lays down for musical instruction. It cannot, indeed, be separated from actual practice, without which no true understanding of music can be arrived at; but since the aim of musical education is not the practice of the art itself, but only the cultivation of the musical taste, the former must be confined to the period of apprenticeship, seeing that it does not become a man to be a musician. Even in the case of children the line must not be crossed which separates the connoisseur from the professional artist.[2] To the latter, music is a trade which ministers to the taste of the uneducated masses; so it is the occupation of an artisan, enfeebling to the body and degrading to the mind. To the freeman, on the other hand, it is a means of culture and education.[3] The choice of the instruments and melodies to be used for purposes of instruction will be made with this end in view. Besides, however, the quiet and simple music which alone he would permit his citizens to practise, Aristotle authorises for public occasions a more exciting and artificial style, which may be either earnest and purifying for those who have received a liberal education, or of a less chaste description for the recreation of the lower classes and slaves.[4]

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[1] *Ibid.* 1339, a, 21 sqq. 1340, a, 7–b, 19.

[2] Aristotle deprecates in general education *τὰ πρὸς τοὺς ἀγῶνας τοὺς τεχνικοὺς συντείνοντα, τὰ θαυμάσια καὶ περιττὰ τῶν ἔργων, ἃ νῦν ἐλήλυθεν εἰς τοὺς ἀγῶνας, ἐκ δὲ τῶν ἀγώνων εἰς τὴν παιδείαν.* c. 6, 1341, a, 10.

[3] viii. 6, 1340, b–20, 1341, a, 17, 1341, b, 8–18, c. 5, 1339, b, 8.

[4] *Ibid.* c. 6, 1341, a–b, 8, c. 7.

With these remarks the *Politics* ends, leaving even the discussion of music unfinished.[1] It is inconceivable, however, that Aristotle intended to conclude here his treatise upon education. With so keen a sense of the importance of music as an element in education, and with Plato's example before him, it is impossible that he should have overlooked that of poetry; and, indeed, he betrays his intention of discussing it in his proposal to treat 'subsequently' of comedy.[2] It is also most improbable that a man like Aristotle, who regarded the scientific activity as the highest of all, and as the most essential element in happiness, and who considered political science of such vital importance as an element in social life,[3] should have passed over in silence the whole subject of scientific training.[4] Nor could he have desired to entrust it to private effort, for he says that the whole of education must be public. Aristotle himself repeatedly indicates that after ethical, he intends to discuss intellectual culture.[5] He promises, moreover, to return to the life of the family and to female education (to which he attaches the greatest importance, and the neglect of which he severely censures), and to discuss these at greater length in connection with the various forms of constitution;[1] in the text, however, as we have it, this promise is not fulfilled.[2] He further speaks of punishment as a means of education,[3] and we should accord-

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[1] For after viii. 7 *init.* we should have had a discussion of rhythm; cf. HILDENBRAND, *ibid.* p. 453 (as opposed to NICKES, *De Arist. Polit. Libr.* p. 93).

[2] vii. 17, 1336, b, 20: *τοὺς δὲ νεωτέρους οὔτ' ἰάμβων οὔτε κωμῳδίας θεατὰς νομοθετητέον . . . ὕστερον δ' ἐπιστήσαντας δεῖ διορίσαι μᾶλλον.*

[3] See *Eth.* x. 10, 1180, a, 32, b, 20 sqq.

[4] It is the question of the education of the citizens that leads to the statement, *Polit.* vii. 14, 1333, b, 16 sqq., that theoretic activity is the highest and the aim of all the others. It must therefore be the goal and one of the most essential elements of education in the best state.

[5] *Polit.* vii. 15, 1334, b, 8: *λοιπὸν δὲ θεωρῆσαι πότερον παιδευτέοι τῷ λόγῳ πρότερον ἢ τοῖς ἔθεσιν. ταῦτα γὰρ δεῖ πρὸς ἄλληλα συμφωνεῖν συμφωνίαν τὴν ἀρίστην.* The answer is, that moral education must precede (see p. 261, *supra*); by which it is implied that a section on scientific education will follow. Several departments are spoken of, viii. 3, 1338, a, 30 sqq., as belonging to a liberal education, and it is prescribed, viii. 4, 1339, a, 4, that after entering upon manhood

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young people should receive preliminary instruction for the space of three years in the other departments (*μαθήματα*) before the more exhausting exercise in gymnastics begins, as the two are incompatible—physical exhaustion being inimical to thought (*διάνοια*)—so that a place should here be assigned to the discussion of scientific instruction.

[1] *Polit.* i. 13, 1260, b, 8: *περὶ δὲ ἀνδρὸς καὶ γυναικὸς καὶ τέκνων καὶ πατρὸς, τῆς τε περὶ ἕκαστον αὐτῶν ἀρετῆς, καὶ τῆς πρὸς σφᾶς αὐτοὺς ὁμιλίας, τί τὸ καλῶς καὶ μὴ καλῶς ἐστὶ, καὶ πῶς δεῖ τὸ μὲν εὖ διώκειν τὸ δὲ κακῶς φεύγειν, ἐν τοῖς περὶ τὰς πολιτείας ἀναγκαῖον ἐπελθεῖν· ἐπεὶ γὰρ οἰκία μὲν πᾶσα μέρος πόλεως, ταῦτα δ' οἰκίας, τὴν δὲ τοῦ μέρους πρὸς τὴν τοῦ ὅλου δεῖ βλέπειν ἀρετὴν, ἀναγκαῖον πρὸς τὴν πολιτείαν βλέποντας παιδεύειν καὶ τοὺς παῖδας καὶ τὰς γυναῖκας, εἴπερ τι διαφέρει πρὸς τὸ τὴν πόλιν εἶναι σπουδαίαν καὶ τοὺς παῖδας εἶναι σπουδαίους καὶ τὰς γυναῖκας σπουδαίας. ἀναγκαῖον δὲ διαφέρειν· αἱ μὲν γὰρ γυναῖκες ἥμισυ μέρος τῶν ἐλευθέρων, ἐκ δὲ τῶν παίδων οἱ κοινωνοὶ γίνονται τῆς πολιτείας.* Cf. ii. 9, 1269, b, 17: *ἐν ὅσαις πολιτείαις φαύλως ἔχει τὸ περὶ τὰς γυναῖκας, τὸ ἥμισυ τῆς πόλεως εἶναι δεῖ νομίζειν ἀνομοθέτητον.* BRANDIS, ii. b, 1673, A, 769.

[2] For we cannot regard the occasional allusions which we find in ii. 6, 7, 9 as such a fulfilment.

[3] The measure of punishment has already been found (see end of last chap.) in the principle of corrective justice, according to which each must suffer loss in proportion to the advantage which he has unjustly usurped. The aim of punishment, on the other hand, according to Aristotle, who here agrees with Plato (*Ph. d. Gr.* i. p. 744) is chiefly to improve the culprit and deter him from further wrong-doing, but partly also, in so far as he is himself incurable, to protect society against him. Cf. *Rhet.* i. 10, 1269, b, 12: *διαφέρει δὲ τιμωρία καὶ κόλασις· ἡ μὲν γὰρ κόλασις τοῦ πάσχοντος ἕνεκά ἐστιν, ἡ δὲ τιμωρία τοῦ ποιοῦντος, ἵνα ἀποπληρωθῇ.* *Eth.* ii. 2; see p. 157, n. 5, *sup.* *Ibid.* x. 10, 1179, b, 28: he who lives by passion cannot be improved by mere exhortation; *ὅλως τ' οὐ δοκεῖ λόγῳ ὑπείκειν τὸ πάθος ἀλλὰ βίᾳ.* *Ibid.* 1180, a, 4 (cf. p. 271, n. 4, *infra*): the better kind of men, say some [*i.e.* Plato—but Aristotle himself is clearly of the same opinion], must be admonished, *ἀπειθοῦσι δὲ καὶ ἀφυεστέροις οὖσι κολάσεις τε καὶ τιμωρίας ἐπιτιθέναι, τοὺς δ' ἀνιάτους ὅλως ἐξ-*

ingly have expected a full discussion of its aims and application, with at least a sketch of the outlines of a system of penal justice; but in the *Politics*, as we have it, this subject is not touched upon. Similarly, questions of public economy,[1] of the treatment of slaves,[2] and of drinking habits,[3] though proposed for discussion, are left untouched; and generally it may be said the whole question of the regulation of the life of adult citizens is passed over in silence, although it is impossible to doubt that Aristotle regarded this as one of the chief problems of political science, and that, like Plato, he intended that education should be continued as a principle of moral guidance throughout the whole of life.[4] The same is true, as already remarked, of the whole question of legislation: if the *Politics* gives us little light on this

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ορίζειν· τὸν μὲν γὰρ ἐπιεικῆ καὶ πρὸς τὸ καλὸν ζῶντα τῷ λόγῳ πειθαρχήσειν, τὸν δὲ φαῦλον ἡδονῆς ὀρεγόμενον λύπῃ κολάζεσθαι ὥσπερ ὑποζύγιον. *Ibid.* iii. 7, 1113, b, 23: κολάζουσι γὰρ καὶ τιμωροῦνται τοὺς δρῶντας μοχθηρὰ . . . τοὺς δὲ τὰ καλὰ πράττοντας τιμῶσιν, ὡς τοὺς μὲν προτρέψοντες, τοὺς δὲ κωλύσοντες. The aim, therefore, of punishment, unless we have to do with an incurable offender, is improvement: in the first instance, however, only that improvement of conduct which springs from the fear of punishment, not that more fundamental one of the inclinations which is effected in nobler natures by instruction and admonition: improvement, therefore, only in the sense in which it corresponds to the determent of the offender. Cf. HILDENBRAND, *ibid.* 299 sqq.

[1] περὶ κτήσεως καὶ τῆς περὶ τὴν οὐσίαν εὐπορίας πῶς δεῖ καὶ τίνα τρόπον ἔχειν πρὸς τὴν χρῆσιν αὐτήν. vii. 5, 1326, b, 32 sqq.

[2] vii. 10 *fin.*

[3] vii. 17, 1336, b, 24, where the reference to the subsequent discussions does not apply to comedy alone.

[4] Besides *Polit.* vii. 12, 1331, a, 35 sqq. c. 17, 1336, b, 8 sqq. cf. especially *Eth.* x. 10, 1180, a, 1: οὐχ ἱκανὸν δ' ἴσως νέους ὄντας τροφῆς καὶ ἐπιμελείας τυχεῖν ὀρθῆς, ἀλλ' ἐπειδὴ καὶ ἀνδρωθέντας δεῖ ἐπιτηδεύειν αὐτὰ καὶ ἐθίζεσθαι, καὶ περὶ ταῦτα δεοίμεθ' ἂν νόμων καὶ ὅλως περὶ πάντα τὸν βίον· οἱ γὰρ πολλοὶ ἀνάγκῃ μᾶλλον ἢ λόγῳ πειθαρχοῦσι καὶ ζημίαις ἢ τῷ καλῷ.

head, we must throw the blame, not upon Aristotle but upon the incomplete condition of the work.

In the completed work we should also have had a more detailed account of the constitution of the Best State. In the text before us we find only two of its characteristics described—namely, the conditions of its citizenship, and the division in it of political power. In reference to the former of these, Aristotle, like Plato, with a truly Greek contempt for physical labour, would make not only handicraft but also agriculture a disqualification for citizenship in the most perfect state. For the citizen of such a state can only be one who possesses all the attributes of a capable man; but in order to acquire these, and to devote himself to the service of the state, he requires a leisure and freedom from the lower avocations which is impossible to the husbandman, the artisan, and the labourer. Such occupations, therefore, must in the Best State be left to slaves and metœci. The citizens must direct all their energy to the defence and administration of the state; they alone, moreover, are to be the possessors of landed estates, since the national property belongs only to the citizens.[1] On the other hand, all citizens must take part in the direction of the commonwealth. This, according to Aristotle, is demanded equally by justice and necessity; since those who stand on a footing of essential equality must have equal rights, and those who possess the power will not permit themselves to be excluded from the government.[2] But since the actual administration cannot consist of the whole mass of the citizens, since there must be a difference between ruler and ruled, and since different qualities are demanded in the administrator and in the soldier—in the latter physical strength, in the former mature insight—Aristotle considers it desirable to assign different spheres to different ages: military service to the young, the duties of government, including the priestly offices, to the elders; and while thus offering to all a share in the administration, to entrust actual power only to those who are more advanced in life.[1] Such is Aristotle's account of Aristocracy.[2] In its fundamental conception as the rule of virtue and culture, it is closely related to Plato's, from which, however, it widely differs in detail; although even here the difference is one rather of social than of strictly political organisation.

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[1] vii. 9, 1328, b, 24 sqq. 1329, a, 17–26,35, c. 10, 1329, b, 36, after the Egyptian and other similar dispositions have been touched upon. Cf. p. 299, n. 4, *sup.*

[2] vii. 9, 1329, a, 9, c. 13,

1332, a, 34: *ἡμῖν δὲ πάντες οἱ πολῖται μετέχουσι τῆς πολιτείας.* c. 14, 1332, b, 12–32.

[1] vii. 9, 1329, a, 2–17, 27–34, c. 14, 1332, b, 32–1333, b, 11.

[2] iv. 7, 1293, b, 1: *ἀριστοκρατίαν μὲν οὖν καλῶς ἔχει καλεῖν περὶ ἧς διήλθομεν ἐν τοῖς πρώτοις λόγοις· τὴν γὰρ ἐκ τῶν ἀρίστων ἁπλῶς κατ' ἀρετὴν πολιτείαν, καὶ μὴ πρὸς ὑπόθεσίν τινα ἀγαθῶν ἀνδρῶν* [cf. viii. 9, 1328, b, 37], *μόνην δίκαιον προσαγορεύειν ἀριστοκρατίαν.* Cf. c. 2, 1289, a, 31. Quite consistent with this is the definition of aristocracy, iii. 1, 1279, a, 34 (see p. 237, *supra*), as the rule *τῶν ὀλίγων μὲν πλειόνων δ' ἑνὸς* in the interest of the common good, for, in the first place, Aristotle is there speaking only of common usage (*καλεῖν δ' εἰώθαμεν*), giving it at the same time as the sole ground of its right to the title that it is the rule of the best for the common good; and, secondly, in the perfect State it is always actually a minority who rule. There is therefore no ground for distinguishing between the aristocracy mentioned in iii. 7 from that which is spoken of under the same name in iv. 7 and vii. (see FECHNER, *Gerechtigkeitsbegr. d. Arist.* p. 92, n.). Still less can iii. 17 (p. 239, n. 1, *supra*) be cited in support of this distinction, inasmuch as it exactly suits the ideal State.

6. *Imperfect Forms of Constitution*

Besides the best constitution, there are others which, deviating from it in different ways and different degrees,[1] also call for discussion. All these, indeed, in so far as they differ from the ideal state, must be reckoned defective;[2] but this does not prevent them from having a certain conditional justification in given circumstances or form, differing from one another in the degree of their relative worth and stability. Aristotle enumerates, as we have already seen,[3] three chief forms of imperfect constitution: Democracy, Oligarchy, Tyranny; to which as he proceeds he afterwards adds as a fourth, Polity, together with several mixed forms which are akin to it.

Democracy is based upon civil equality and freedom. In order that the citizens may be equal, they must all have an equal right to share in the government; the community, therefore, must be autocratic, and a majority must decide. In order that the citizens may be free, on the other hand, everyone must have liberty to live as he pleases; no one, therefore, has the right to command another, or, so far as this is unavoidable, command, like obedience, must belong to all.[4] All institutions, therefore, are democratic which are based upon the principles that election to the offices of state should be made either by universal suffrage, by lot, or by rotation; that no property qualification, or only an inconsiderable one, be attached to them; that their duration or their powers be limited; that all share in the administration of justice, especially in the more important cases; that the competence of the popular assembly be extended, that of the executive restricted, as much as possible; that all magistrates, judges, senators, and priests be paid. The senate is a democratic institution. When its functions are merged in those of the popular assembly, the government is more democratic still. Low origin, poverty, want of education, are considered to be democratic qualities.[1] But as these characteristics may be found in different degrees in different states, as moreover a particular state may exhibit all or only some of them, different forms of democracy arise.[2] As these variations will themselves chiefly depend, according to Aristotle, upon the occupation and manner of life of the people, it is of the highest political importance whether the population consists of peasants, artisans, or traders, or of one of the various classes of seamen, or of poor day-labourers, or of people without the full rights of citizenship, or whether and in what manner these elements are combined in it.[3] A population engaged in agriculture or in cattle-breeding is in general content if it can devote itself to its work in peace. It is satisfied, therefore, with a moderate share in the administration: as, for example, the choice of the magistrates, their responsibility to itself, and the participation of all in the administration of justice. For the rest, it will like to leave its business in the hands of sensible men. This is the most orderly form of democracy. A community of artisans, traders, and labourers is a much more troublesome body to deal with. Their employments act more prejudicially upon the character, and being closely packed together in the city they are always ready to meet for deliberation in public assemblies. If all without exception possess the full rights of citizenship; if those who are not freeborn citizens are admitted to the franchise; if the old tribal and communal bonds are dissolved and the different elements in the population massed indiscriminately together; if the force of custom is relaxed and the control over women, children, and slaves is weakened, there necessarily arises that unregulated form of democracy which, as licence has always more attraction for them than order, is so dear to the masses.[1] In this way there arise different forms of democracy, of which Aristotle enumerates four.[2] The first is that in which actual equality reigns, and in which, while no exclusive influence is conceded either to rich or poor, a certain property qualification—although a small one—is attached to the public offices. The second form is that in which no condition is attached to eligibility for office beyond citizenship and irreproachable character. A third is that in which, while the public offices belong by right to every citizen, the government is still conducted on constitutional principles. The fourth or unlimited democracy is, finally, that in which the decrees of the people are placed above the laws; in which the people, led by demagogues, as a tyrant by his courtiers, becomes a despot, and in which all constitutional order disappears in the absolute power of the many-headed sovereign.[1]

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[1] See p. 235 sq. *supra*.

[2] Cf. the passages which are cited p. 238, n. 1, *supra*, especially *Polit.* iv. 2, 1289, b, 6: Plato says, if the oligarchy &c. be good, the democratic form of constitution is the worst, whereas if they are bad, it is the best. ἡμεῖς δὲ ὅλως ταύτας ἐξημαρτημένας εἶναί φαμεν, καὶ βελτίω μὲν ὀλιγαρχίαν ἄλλην ἄλλης οὐ καλῶς ἔχει λέγειν, ἧττον δὲ φαύλην. The imperfect forms of constitution are usually called παρεκβάσεις.

[3] P. 237 sqq.

[4] vi. 2, 1317, a, 40–b, 16, *inter alia*; see p. 239 sq.

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[1] *Ibid.* 1317, b, 16–1318, a, 3, iv. 15, 1300, a, 31.

[2] vi. 1, 1317, a 22, 29 sqq.

[3] iv. 4, 1291, b, 15 sqq. c. 6 *init.* c. 12 (see p. 248, n. 1, *supra*), vi. 7 *init.* c. 1, 1317, a, 22 sqq. In the latter passage both grounds of the difference in democratic constitutions—the character of the population, and the extent to which the institutions are democratic—are mentioned side by side. From other passages, however, it is evident that Aristotle regards the second of these as dependent upon the first.

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[1] *Polit.* vi. 4 (where, however, 1318, b, 13, *μὴ* must be struck out); cf. iv. 12, 1296, b, 24 sqq.

[2] iv. 4, 1291, b, 30 sqq. c. 6, cf. c. 12, *ibid.*, vi. 4, 1318, b, 6, 1319, a, 38. A fifth form seems, iv. 4, 1291, b, 39, to be inserted between the first and the second; its peculiarity, however, according to this passage, *τὸ τὰς ἀρχὰς ἀπὸ τιμημάτων ϵἶναι*, according to iv. 6 *init.* is rather a characteristic of the first form. With SUSEMIHL and others, it will therefore be better to omit ἄλλο δὲ in the passage referred to. Cf. HENKEL, *ibid.* p. 82.

Oligarchy consists, as we already know, in the rule of the propertied classes. But here, also, we find a progress from more moderate forms to absolute, unlimited oligarchy. The mildest is that in which, while a property qualification sufficient to exclude the mass of poorer citizens from the exercise of political rights is demanded, the franchise is yet freely conceded to all who possess the requisite amount. The second form is that in which the government is originally in the possession only of the richest, who fill up their own ranks by co-optation, either from the whole body of the citizens or from a certain class. The third is that in which political power descends from father to son. The fourth, finally, as a parallel to tyranny and unlimited democracy, is that in which hereditary power is limited by no laws.[1] Aristotle, however, here remarks, in terms that would apply equally to all forms of government, that the spirit of the administration is not unfrequently at variance with the legal form of the constitution, and that this is especially the case when a change in the constitution is imminent.[2] In this way there arise mixed forms of constitution; these, however, are just as often the result of the conscious effort to avoid the one-sidedness of democracy and oligarchy, as is the case with 'aristocracy' commonly so called and with polity.

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[1] With the account of this form of democracy, *ibid.* 1292, a, 4 sqq. v. 11, 1313, b, 32 sqq. vi. 2, 1317, b, 13 sqq., cf. PLATO'S *Rep.* viii. 557 A sqq. 562 B sqq. vi. 493, with the spirit of which it has obviously much in common.

Although the name aristocracy belongs, strictly speaking, only to the best form of constitution, Aristotle yet permits it to be applied to those forms also which, while they do not, like the former, make the virtue of the whole body of the citizens their chief aim, yet in electing to public office look, not to wealth only, but also to capacity. This kind of aristocracy, therefore, is a mixed form of government in which oligarchical, democratic, and genuinely aristocratic elements are all combined.[3] To this form 'polity' is closely allied.[4]

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[1] *Polit.* iv. 5.

[2] *Ibid.* 1292, b, 11.

[3] So iv. 7, where Aristotle goes on to enumerate three kinds of aristocracy in this sense: *ὅπου ἡ πολιτεία βλέπει εἴς τε πλοῦτον καὶ ἀρετὴν καὶ δῆμον, οἷον ἐν* Καρχηδόνι . . . *καὶ ἐν αἷς εἰς τὰ δύο μόνον οἷον ἡ Λακεδαιμονίων εἰς ἀρετήν τε καὶ δῆμον, καὶ ἔστι μίξις τῶν δύο τούτων, δημοκρατίας τε καὶ ἀρετῆς . . . καὶ τρίτον ὅσαι τῆς καλουμένης πολιτείας ῥέπουσι πρὸς τὴν ὀλιγαρχίαν μᾶλλον.* v. 7, 1307, a, 7: *ἀρχὴ γὰρ [τῆς μεταβολῆς] τὸ μὴ μεμῖχθαι καλῶς ἐν μὲν τῇ πολιτείᾳ δημοκρατίαν καὶ ὀλιγαρχίαν, ἐν δὲ τῇ ἀριστοκρατίᾳ ταῦτά τε καὶ τὴν ἀρετὴν, μάλιστα δὲ τὰ δύο· λέγω δὲ τὰ δύο δῆμον καὶ ὀλιγαρχίαν· ταῦτα γὰρ αἱ πολιτεῖαί τε πειρῶνται μιγνύναι καὶ αἱ πολλαὶ τῶν καλουμένων ἀριστοκρατιῶν . . . τὰς γὰρ ἀποκλινούσας μᾶλλον πρὸς τὴν ὀλιγαρχίαν ἀριστοκρατίας καλοῦσιν, τὰς δὲ πρὸς τὸ πλῆθος πολιτείας.*

[4] See preceding note, and iv.

Aristotle here describes it as a mixture of oligarchy and democracy.[1] It rests on a proper proportion between rich and poor;[2] it is the result of the union in one form or another of oligarchic and democratic institutions;[3] and accordingly it may be classed equally, in so far as this union is of the right sort, as a democracy and as an oligarchy.[4] Its leading feature is, in a word, the reconciliation of the antagonism between rich and poor and their respective governments. Where the problem is solved, and the proper mean is discovered between one-sided forms of government, there must result a universal contentment with existing institutions, and as a consequence fixity and permanence in the con-

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11, 1295, a, 31: *καὶ γὰρ ἃς καλοῦσιν ἀριστοκρατίας, περὶ ὧν νῦν εἴπομεν, τὰ μὲν ἐξωτέρω πίπτουσι ταῖς πλείσταις τῶν πόλεων, τὰ δὲ γειτνιῶσι τῇ καλουμένῃ πολιτείᾳ· διὸ περὶ ἀμφοῖν ὡς μιᾶς λεκτέον.*

[1] iv. 8, 1293, b, 33: *ἔστι γὰρ ἡ πολιτεία ὡς ἁπλῶς εἰπεῖν μίξις ὀλιγαρχίας καὶ δημοκρατίας, εἰώθασι δὲ καλεῖν τὰς μὲν ἀποκλινούσας ὡς πρὸς τὴν δημοκρατίαν πολιτείας, τὰς δὲ πρὸς τὴν ὀλιγαρχίαν μᾶλλον ἀριστοκρατίας.* Cf. preceding note.

[2] *Ibid.* 1294, a, 19: *ἐπεὶ δὲ τρία ἐστὶ τὰ ἀμφισβητοῦντα τῆς ἰσότητος τῆς πολιτείας, ἐλευθερία πλοῦτος ἀρετή, . . . φανερὸν ὅτι τὴν μὲν τοῖν δυοῖν μίξιν, τῶν εὐπόρων καὶ τῶν ἀπόρων, πολιτείαν λεκτέον, τὴν δὲ τῶν τριῶν ἀριστοκρατίαν μάλιστα τῶν ἄλλων παρὰ τὴν ἀληθινὴν καὶ πρώτην.* See p. 278, n. 3, *supra.*

[3] iv. 9: in order to obtain a 'polity' we must fix our attention on the institutions which are peculiar to democracy and oligarchy, *εἶτα ἐκ τούτων ἀφ' ἑκατέρας ὥσπερ σύμβολον* [on this expression, cf. *inter alia*, *Gen. An.* i. 18, 722, b, 11; PLATO, *Symp.* 191 D] *λαμβάνοντας συνθετέον.* This may be effected in three ways: (1) by simply uniting different institutions in each: *e.g.* the oligarchical custom of punishing the rich if they refuse to take part in court business, with the democratic custom of paying poor men a day's wage for appearing in court; (2) by a compromise: *e.g.* by making neither a high nor a low but a moderate property qualification a condition of admission to the popular assembly; (3) by borrowing one of two kindred institutions from oligarchy, another from democracy: *e.g.* from the former, appointment to office by election instead of by lot; from the latter, the abolition of all property qualifications.

[4] *Ibid.* 1295, b, 14 sqq., where this is shown more fully from the example of the Spartan constitution.

stitution as a whole.[1] Hence polity is the form of government which promises to be the most enduring, and is the best adapted for most states. For if we leave out of consideration the most perfect constitution, and the virtue and culture which render it possible, and ask which is the most desirable,[2] only one answer is possible: that in which the disadvantages of one-sided forms of government are avoided by combining them,[3] and in which neither the poor nor the rich part of the population, but the prosperous middle class, has the decisive voice.[4] But this is exactly what we find in polity. It exhibits the antagonistic forces of rich and poor in equilibrium, and must itself, therefore, rest on the class which stands between them. It is the intermediate form of constitution,[5] that which is more favourable than any other to common well-being and universal justice,[6] and presupposes the preponderance of the middle class over each of the other two.[1] The more any one of the other forms of constitution approximates to this the better it will be, the more widely it differs from it—if we leave out of account the circumstances which may give it a relative value in a particular case—the worse.[2] And as virtue consists in preserving the proper mean, it may be said that polity corresponds more closely than any other form of government to the life of virtue in the state;[3] and accordingly we shall be quite consistent in classing it among good constitutions, and in representing it as based upon the diffusion among all classes of a definite measure of civic virtue.[4] If, further, this virtue be sought for pre-eminently in military capacity, and polity be defined as the govern-

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[1] *Ibid.* 1. 34: δεῖ δ' ἐν τῇ πολιτείᾳ τῇ μεμιγμένῃ καλῶς ἀμφότερα δοκεῖν εἶναι καὶ μηδέτερον, καὶ σώζεσθαι δι' αὑτῆς καὶ μὴ ἔξωθεν, καὶ δι' αὑτῆς μὴ τῷ πλείους ἔξωθεν εἶναι τοὺς βουλομένους [not by the fact that the majority of those who wish another form of constitution are excluded from participation in State management] (εἴη γὰρ ἂν καὶ πονηρᾷ πολιτείᾳ τοῦθ' ὑπάρχον) ἀλλὰ τῷ μηδ' ἂν βούλεσθαι πολιτείαν ἑτέραν μηθὲν τῶν τῆς πόλεως μορίων ὅλως.

[2] Cf. iv. 11 *init.*: τίς δ' ἀρίστη πολιτεία καὶ τίς ἄριστος βίος ταῖς πλείσταις πόλεσι καὶ τοῖς πλείστοις τῶν ἀνθρώπων μήτε πρὸς ἀρετὴν συγκρίνουσι τὴν ὑπὲρ τοὺς ἰδιώτας, μήτε πρὸς παιδείαν ἣ φύσεως δεῖται καὶ χορηγίας τυχηρᾶς, μήτε πρὸς πολιτείαν τὴν κατ' εὐχὴν γινομένην, ἀλλὰ βίον τε τὸν τοῖς πλείστοις κοινωνῆσαι δυνατὸν καὶ πολιτείαν ἧς τὰς πλείστας πόλεις ἐνδέχεται μετασχεῖν. To this question (with which cf. p. 235) the answer is then given as in the text.

[3] iv. 11, 1297, a, 6: ὅσῳ δ' ἂν ἄμεινον ἡ πολιτεία μιχθῇ, τοσούτῳ μονιμωτέρα. Cf. v. 1, 1302, a, 2 sqq.

[4] v. 11; see p. 248, n. 1, *supra*.

[5] μέση πολιτεία, iv. 11, 1296, a, 37.

[6] iv. 11, 1296, a 22: why is the best constitution, that which is intermediate between oligarchy and democracy, so rare? Because in most cities the middle class (τὸ μέσον) is too weak; because in the wars between parties the victors established no

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πολιτεία κοινὴ καὶ ἴση; because in like manner in the contest for the hegemony of Greece one party favoured democracy, the other oligarchy, and because men are accustomed *μηδὲ βούλεσθαι τὸ ἴσον ἀλλ' ἢ ἄρχειν ζητεῖν ἢ κρατουμένους ὑπομένειν*. Speaking of the influence *τῶν ἐν ἡγεμονίᾳ γενομένων τῆς Ἑλλάδος*, Aristotle here remarks, l. 39: for these reasons the *μέση πολιτεία* is either never found or *ὀλιγάκις καὶ παρ' ὀλίγοις· εἷς γὰρ ἀνὴρ συνεπείσθη μόνος τῶν πρότερον ἐφ' ἡγεμονίᾳ γενομένων ταύτην ἀποδοῦναι τὴν τάξιν*. The *εἷς ἀνὴρ* was formerly taken to be Lycurgus; others have suggested Theseus (SCHNEIDER, ii. 486 of his edition; SPENGEL, *Arist. Stud.* iii. 50), Solon (HENKEL, *ibid.* 89, SUSEMIHL, in *Bursian's Jahresbericht* for 1875, p. 376 sq.) and others. It cannot be said of any of these, however, that the hegemony of Hellas was in his hands. ONCKEN, on the other hand, *Staatsl. d. Arist.* ii. 269, refers the passage to Philip of Macedon; but while he certainly left each state its own constitution in the treaty of 338, it is not known that he anywhere introduced (*ἀποδοῦναι*) or restored the *μέση πολιτεία*. Can the reference be to Epaminondas and the communities of Megalopolis and Messene which were founded by him?

[1] iv. 12; see p. 248, n. 1, *supra*.

[2] *Ibid.* 1296, b, 2 sq.

[3] Cf. *Polit.* iv. 11, 1295, a, 35: *εἰ γὰρ καλῶς ἐν τοῖς ἠθικοῖς εἴρηται τὸ τὸν εὐδαίμονα βίον εἶναι τὸν κατ' ἀρετὴν ἀνεμπόδιστον, μεσότητα δὲ τὴν ἀρετήν, τὸν μέσον ἀναγκαῖον βίον εἶναι βέλτιστον, τῆς ἑκάστοις ἐνδεχομένης τυχεῖν μεσότητος. τοὺς δὲ αὐτοὺς τούτους ὅρους ἀναγκαῖον εἶναι καὶ πόλεως ἀρετῆς καὶ κακίας καὶ πολιτείας· ἡ γὰρ πολιτεία βίος τίς ἐστι πόλεως.*

[4] See p. 243, n. 1, *supra*.

ment of the men able to bear arms,[1] it may be pointed out in support of that view, first, that the only form of constitution which will be tolerated by a military population is one founded upon universal freedom and equality;[2] and, secondly, that the heavy-armed foot-soldiers who constituted the main strength of the Greek armies belonged chiefly to the well-to-do portion of the people.[3] Nevertheless, the ambiguity of the position of polity in Aristotle's account of it, to which attention has already been called in this chapter, cannot be said to be either justified or explained away by these remarks.

The worst of all forms of constitution is Tyranny, for in it the best—namely, true monarchy—has been transformed into its opposite.[4] In the course of the brief discussion which he devotes to it, Aristotle distinguishes three kinds of tyranny, applying the same name, not only to absolute despotism, but also to the elective monarchy of some barbarous peoples, and to the dictatorship of the old Greek Æsymnetae. True tyranny, however, is only to be found in a state where an individual wields absolute power in his own interest and against the will of the people.[5]

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[1] iii. 7, 17; see p. 243, n. 2, *sup.*

[2] On this head, cf. iii. 11, 1281, b, 28 sq.

[3] vi. 7, 1321, a, 12: *τὸ γὰρ ὁπλιτικὸν τῶν εὐπόρων ἐστὶ μᾶλλον ἢ τῶν ἀπόρων.* The reason of this is to be sought for partly in the fact that the equipment of the hoplites was expensive, but chiefly in the preliminary training in gymnastics required by the service. Cf. also *Polit.* iv. 13, 1297, a, 29 sqq.

[4] iv. 2, 1289, a, 38 sqq. (cf. also vii. 1313, a, 34–1314, a, 29). On the same principle, according to this passage, oligarchy is the second worst, as aristocracy is the second best, constitution, while democracy is the most tolerable of the false forms, being a perversion of polity. For a fuller statement of the same view, see *Eth.* viii. 12.

[5] *Polit.* iv. 10; cf. iii. 14,

Aristotle next proceeds to examine what division of political power is best adapted to each of the different kinds of constitution,[1] distinguishing here three sources of authority: the deliberative assemblies, the magistrates, and the law courts.[2] The functions, however, of these three were not so defined as to permit of their being completely identified with the legislature, the executive, and the judicature of modern political theory.[3] He does not omit to draw attention here to the tricks and sophistries by which the predominant party, in one or other form of government, seeks to circumvent its opponent and to advance its own interests,[4] making it clear, however, that he himself sets small store by such petty and hollow devices.[5] He further discusses the qualities that fit a man for the discharge of the more important offices of state. He demands for this end not merely experience, business capacity, and attachment to the existing constitution, but before everything

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1285, a, 16–b, 3, and p. 240 sq. *supra*.

[1] iv. 14–16; cf. vi. 2, 1317, b, 17–1318, a, 10.

[2] iv. 14, 1297, b, 37: ἔστι δὴ τρία μόρια τῶν πολιτειῶν πασῶν, περὶ ὧν δεῖ θεωρεῖν τὸν σπουδαῖον νομοθέτην ἑκάστῃ τὸ συμφέρον· ὧν ἐχόντων καλῶς ἀνάγκη τὴν πολιτείαν ἔχειν καλῶς, καὶ τὰς πολιτείας ἀλλήλων διαφέρειν ἐν τῷ διαφέρειν ἕκαστον τούτων· ἔστι δὲ τῶν τριῶν τούτων ἓν μὲν τί τὸ βουλευόμενον περὶ τῶν κοινῶν, δεύτερον δὲ τὸ περὶ τὰς ἀρχάς . . . τρίτον δὲ τί τὸ δικάζον.

[3] *Ibid.* 1298, a, 3, Aristotle continues: κύριον δ' ἐστὶ τὸ βουλευόμενον περὶ πολέμου καὶ εἰρήνης καὶ συμμαχίας καὶ διαλύσεως, καὶ περὶ νόμων, καὶ περὶ θανάτου καὶ φυγῆς καὶ δημεύσεως, καὶ τῶν εὐθυνῶν, so that conformably to Greek usage the deliberative assembly, in addition to its legislative functions, has important judicial and executive duties to perform.

[4] Ὅσα προφάσεως χάριν ἐν ταῖς πολιτείαις σοφίζονται πρὸς τὸν δῆμον, the ὀλιγαρχικὰ σοφίσματα τῆς νομοθεσίας, and on the other hand ἃ ἐν ταῖς δημοκρατίαις πρὸς ταῦτ' ἀντισοφίζονται, iv. 13.

[5] v. 2, 1307, b, 40, he advises: μὴ πιστεύειν τοῖς σοφίσματος χάριν πρὸς τὸ πλῆθος συγκειμένοις· ἐξελέγχεται γὰρ ὑπὸ τῶν ἔργων:

else that kind of culture and character which is in harmony with the spirit of the constitution.[1] He passes in review the various offices of state,[2] leaving off at the point where we should naturally have expected that portion of the missing discussion of the laws which relate to public offices. He treats with especial care, however, the causes which produce change and dissolution in particular forms of constitution[3] and the means to counteract them.[4] Here, also, he is true to his method of specifying as fully as possible, as the result of wide observation and reflection, all the various causes which are at work and the nature of their effects; and accordingly he challenges the conclusions of Plato's *Republic* on the subject of the revolutions in states and their causes, with justice indeed, in so far as his theory of politics is in stricter accordance with facts, but at the same time not without a certain misunderstanding of their true character.[5] This whole section is exceptionally rich in examples of acute observation, sound judgment, and profound knowledge of the world; it is impossible, however, to do more here than mention a few of the chief points of interest. Two of these stand out in special prominence. In the first place, he warns us against under-estimating small deviations from the *status quo*, or insignificant occasions of party strife. Important though the objects for which parties contend usually are, the actual outbreak of hostilities may be occasioned by the pettiest of causes,[1] and small as the change in a government may be at first, yet this may be itself the cause of a greater, and so there may gradually come about from small beginnings a complete revolution in the whole.[2] Secondly, we have the principle which constitutes one of the leading thoughts in Aristotle's *Politics*, and is not the least of the many proofs of political insight exhibited in the work—namely, that every form of government brings ruin on itself by its own excess, and that moderation in the use of authority, justice to all, good administration and moral capacity are the best means of retaining power. Democracies are ruined by demagogy and by injustice towards the prosperous classes; oligarchies, by oppression of the people and by the limitation of political rights to too small a minority; monarchies by arrogance and outrage in the rulers.[3] He who desires the maintenance of any particular form of government must endeavour above everything to keep it within the limits of moderation, and prevent it from courting its own destruction by any one-sided insistence on the principle of its constitution;[4] he must endeavour to reconcile conflicting factions; he must counterbalance the preponderance of one by assigning corresponding influence to the other, and so preserve the former from excess.[1] Above all, he must be careful to prevent the public offices from being worked for selfish ends, or one portion of the people from being plundered and oppressed by the other. Here the right course is precisely the opposite of that which is commonly pursued: it is precisely the natural opponents of a constitution that require most consideration, lest by unjust treatment they be transformed into active enemies of the commonwealth.[2] In another respect what is required by the nature of the case is the opposite of that which commonly occurs. Nothing is of greater importance for the preservation of any form of state than the previous education of those in whose hands the power is placed.[3] But capacity for rule depends solely upon modesty and hardihood; the power of the oligarch is incompatible with effeminacy, the freedom of the people with licentiousness.[4] And this is true of all forms of constitution without exception. Even the absolute power of the monarch depends for its continuance upon its limitation;[1] and the unrighteous rule of the tyrant can only make men forget the odium of its origin by approaching in the form of its administration to monarchy. The best means for the maintenance of tyranny is care for the common well-being, for the embellishment of the city, and for the public services of religion, a modest household and good economy, ready recognition of merit, a courteous and dignified bearing, commanding personality, sobriety and strength of character, regard for the rights and interests of all.[2] So in like manner with regard to oligarchy, the more despotic it is, the more need is there for good order in the government: for just as it is the sickly body or the cranky vessel that demands the most careful management, so it is the bad state that most requires good administration in order to counterbalance its defects.[3] And so we arrive always at the same conclusion—namely, that justice and morality are the only security for durability in states. However deep the philosopher goes in the scientific analysis of the forms of constitution which more or less lack this foundation, it is only to arrive in the end at the same result, and to show that in them also the government must be conducted upon the principles which more obviously underlie the true forms: that which in these last is the

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[1] v. 9, where the third commonly neglected point of the ἀρετὴ καὶ δικαιοσύνη ἐν ἑκάστῃ πολιτείᾳ ἡ πρὸς τὴν πολιτείαν is discussed with especial fullness. Cf. p. 286, n. 3, *infra*.

[2] vi. 8.

[3] v. 1–7, 10.

[4] v. 8, 9, 11, vi. 5–7.

[5] v. 12, 1315, a, 40 sqq.; cf. ZELLER, *Platon. Stud.* 206 sq.

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[1] v. 4 *init.*: γίγνονται μὲν οὖν αἱ στάσεις οὐ περὶ μικρῶν ἀλλ' ἐκ μικρῶν, στασιάζουσι δὲ περὶ μεγάλων. μάλιστα δὲ καὶ αἱ μικραὶ ἰσχύουσιν, ὅταν ἐν τοῖς κυρίοις γένωνται . . . ἐν ἀρχῇ γὰρ γίγνεται τὸ ἁμάρτημα, ἡ δ' ἀρχὴ λέγεται ἥμισυ εἶναι παντός &c.; in support of which there follows a rich collection of examples.

[2] v. 7, 1307, a, 40 sqq. c. 3, 1303, a, 20.

[3] v. 5, c. 6 *init.*, *ibid.* 1305, b, 2, 1306, a, 12, c. 10, 1311 a, 22 sqq. These are not the only causes of their ruin, according to Aristotle, but they are among the most frequent and important.

[4] v. 9, 1309, b, 18: παρὰ πάντα δὲ ταῦτα δεῖ μὴ λανθάνειν, ὃ νῦν λανθάνει τὰς παρεκβεβηκυίας πολιτείας, τὸ μέσον· πολλὰ γὰρ τῶν δοκούντων δημοτικῶν λύει τὰς δημοκρατίας καὶ τῶν ὀλιγαρχικῶν τὰς ὀλιγαρχίας, as is well shown in what follows. Cf. vi. 5, 1320, a, 2 sqq.

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[1] v. 8, 1308, b, 24.

[2] v. 8, 1308, b, 31–1309, a, 32, c. 9, 1310, a, 2 sqq. vi 5, 1320, a, 4 sqq. 29 sqq. c. 7, 1321, a, 31 sqq.

[3] v. 9, 1310, a, 12: *μέγιστον δὲ πάντων τῶν εἰρημένων πρὸς τὸ διαμένειν τὰς πολιτείας, οὗ νῦν ὀλιγωροῦσι πάντες, τὸ παιδεύεσθαι πρὸς τὰς πολιτείας. ὄφελος γὰρ οὐθὲν τῶν ὠφελιμωτάτων νόμων καὶ συνδεδοξασμένων ὑπὸ πάντων τῶν πολιτευομένων, εἰ μὴ ἔσονται εἰθισμένοι καὶ πεπαιδευμένοι ἐν τῇ πολιτείᾳ.* Cf. pp. 261, 284, n. 1, *supra.*

[4] *Ibid.* l. 19: *ἔστι δὲ τὸ πεπαιδεῦσθαι πρὸς τὴν πολιτείαν οὐ τοῦτο, τὸ ποιεῖν οἷς χαίρουσιν οἱ ὀλιγαρχοῦντες ἢ οἱ δημοκρατίαν βουλόμενοι, ἀλλ' οἷς δυνήσονται οἱ μὲν ὀλιγαρχεῖν οἱ δὲ δημοκρατεῖσθαι. νῦν δ' ἐν μὲν ταῖς ὀλιγαρχίαις οἱ τῶν ἀρχόντων υἱοὶ τρυφῶσιν, οἱ δὲ τῶν ἀπόρων γίγνονται γεγυμνασμένοι καὶ πεπονηκότες, ὥστε καὶ βούλονται μᾶλλον καὶ δύνανται νεωτερίζειν.* Similarly in democracies: *ζῇ ἐν ταῖς τοιαύταις δημοκρατίαις ἕκαστος ὡς βούλεται . . . τοῦτο δ' ἐστὶ φαῦλον· οὐ γὰρ δεῖ οἴεσθαι δουλείαν εἶναι τὸ ζῆν πρὸς τὴν πολιτείαν, ἀλλὰ σωτηρίαν.*

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[1] v. 11 *init.*: σώζονται δὲ [αἱ μοναρχίαι] τῷ τὰς μὲν βασιλείας ἄγειν ἐπὶ τὸ μετριώτερον. ὅσῳ γὰρ ἐλαττόνων ὦσι κύριοι, πλείω χρόνον ἀναγκαῖον μένειν πᾶσιν τὴν ἀρχήν· αὐτοί τε γὰρ ἧττον γίνονται δεσποτικοὶ καὶ τοῖς ἤθεσιν ἴσοι μᾶλλον καὶ ὑπὸ τῶν ἀρχομένων φθονοῦντα. ἧττον.

[2] v. 11, 1314, a, 29–1315, b, 10.

[3] vi. 6, 1320, b, 30 sqq.

primary object of government—namely, the well-being of all—is in the former an indispensable means for retaining the sovereignty.

The fates prevented Aristotle from developing his political views with the fullness and completeness he intended in his plan, and philosophy is, doubtless, greatly the loser. But even in the incomplete form in which we have it, the *Politics* is the richest treasure that has come down to us from antiquity, and, if we take into account the difference of the times, it is the greatest contribution to the field of political science that we possess.

CHAPTER XIV

RHETORIC

ARISTOTLE regards Rhetoric, as we have already seen, as auxiliary to Politics.[1] His treatment of this, as of other branches of science, was thoroughly revolutionary, and his labours may be said to form an epoch in its history. While his predecessors had contented themselves with what was little more than a collection of isolated oratorical aids and artifices,[2] he sought to lay bare the permanent principles which underlie a matter in which success is commonly regarded as a mere question of chance, or at best of practice and readiness, and thus to lay the foundations for a technical treatment of rhetoric.[3] He seeks to supply what Plato[4] had demanded but had not actually attempted—namely, a scientific account of the principles of the oratorical art. He does not limit the sphere of this art, as did the ordinary view, to forensic and perhaps political oratory. He remarks, as his predecessor had done, that since the gift of speech is universal and may be applied to the most diverse purposes, and since its exercise, whether in public or in private, in giving advice, in exhortation, and in every kind of exposition, is essentially the same, rhetoric, like dialectic, is not confined to any special field;[1] as dialectic exhibits the forms of thought, so must rhetoric exhibit the forms of persuasive speech in all their universality, and apart from their application to any particular subject-matter.[2] On the other hand, as Plato had already observed,[3] the function of the art of oratory is different from that of philosophy: the latter aims at instruction, the former at persuasion; the goal of the one is truth, of the other probability.[4] Aristotle, however, differs from his teacher in the value he attaches to this art and to theoretical discussions devoted to its exposition.[5] He agrees, indeed, with Plato in reproaching ordinary rhetoric with limiting itself to aims which are merely external, and considering it merely as a means for exciting the emotions and winning over the jury, and with neglecting the higher branch of oratory

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[1] Cf. p. 185, n. 1, *supra*, and on Aristotle's rhetorical works, vol. i. p. 72 sq.

[2] Besides what PLATO, *Phædrus*, 266 C sqq., and Aristotle himself, *Rhet.* i. 1, 1354, a, 11 sqq., remarks, see also *Ph. d. Gr.* i. p. 1013 sqq.

[3] *Rhet.* i. 1, 1354, a, 6: *τῶν μὲν οὖν πολλῶν οἱ μὲν εἰκῇ ταῦτα δρῶσιν, οἱ δὲ διὰ συνήθειαν ἀπὸ ἕξεως. ἐπεὶ δ' ἀμφοτέρως ἐνδέχεται, δῆλον ὅτι εἴη ἂν αὐτὰ καὶ ὁδοποιεῖν· δι' ὃ γὰρ ἐπιτυγχάνουσιν οἵ τε διὰ συνήθειαν καὶ οἱ ἀπὸ ταὐτομάτου, τὴν αἰτίαν θεωρεῖν ἐνδέχεται, τὸ δὲ τοιοῦτον ἤδη πάντες ἂν ὁμολογήσαιεν τέχνης ἔργον εἶναι.*

[4] *Phædr.* 269 D sqq.; cf. ZELL. *Ph. d. Gr.* p. 803 sq.

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[1] *Rhet.* i. 1 *init.*, and 1355, b, 7, c. 2 *init.*, *ibid.* 1356, a, 30 sqq. ii. 18 *init.* c. 1, 1377, b, 21; cf. PLATO, *Phædr.* 261 A sqq.

[2] *Rhet.* i. 4, 1359, b, 12: ὅσῳ δ' ἄν τις ἢ τὴν διαλεκτικὴν ἢ ταύτην [rhetoric] μὴ καθάπερ ἂν δυνάμεις [dexterities] ἀλλ' ἐπιστήμας πειρᾶται κατασκευάζειν, λήσεται τὴν φύσιν αὐτῶν ἀφανίσας τῷ μεταβαίνειν ἐπισκευάζων εἰς ἐπιστήμας ὑποκειμένων τινῶν πραγμάτων, ἀλλὰ μὴ μόνον λόγων.

[3] Cf. *Ph. d. Gr.* i. p. 803 sq.

[4] *Rhet.* i. 1, 1355, a, 25, c. 2 *init.* See also *infra.*

[5] He does not, indeed, mention Plato in *Rhet.* i. 1, 1355, a, 20 sqq., but that he had him, and especially his *Gorgias* (*Ph. d. Gr.* i. p. 510), in his mind is rightly observed by SPENGEL (*Ueb. die Rhetorik des Arist.*: *Abh. d. philos.-philol. Kl. d. Bayer. Akad.* vi. 458 sq.).

—in which these means occupy a secondary place—for the lower, political for forensic eloquence. But on the other hand he recognises that the one essential function of the speaker, under all circumstances, is to convince his audience,[1] and accordingly he admits no rhetoric as genuine which is not based upon dialectic or the art of logical demonstration.[2] He even expressly declares that all rhetorical artifices must be rigorously excluded from the law courts, and orators forced to confine themselves exclusively to logical demonstration.[3] He recognises, however,[4] that all are not open to scientific instruction, but that for the majority of men we must start from the level of the common consciousness, which moves in a region of probability, and not of abstract truth. Nor does he see any great danger in so doing, for men, he holds, have a natural sense of truth, and as a general rule are right.[5] He reminds us that in the art of oratory we possess a means of securing the victory of right, as well as of defending ourselves; and that in order that we may not fall a prey to the arts of opponents, it is indispensable that we should ourselves understand their nature.[6] As, therefore, in the *Logic* he had supplemented the investigation of scientific proof by that of probable proof, in the *Politics* the account of the best with that of defective constitutions, so in the *Rhetoric*, he does not omit to treat of those aids to the orator which supplement actual proof, and to discuss the art of demonstration, not only in its strict sense, but also in the sense of probable proof, which starts with what is universally acknowledged and obvious to the mass of mankind.[1] But as he regards the former as the most important sense, he devotes the fullest discussion to it. Of the three books of the *Rhetoric*, the first two, being the first section of his plan, treat of the means of proof (*πίστεις*); while the second and third parts, on style (*λέξις*) and arrangement (*τάξις*), are compressed into the last book, whose genuineness, moreover, is not beyond dispute.[1]

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[1] *Rhet.* i. 1, 1354, a, 11 sqq. b, 16 sqq.

[2] *Ibid.* 1355, a, 3 sqq. b, 15, c. 2, 1356, a, 20 sqq.

[3] i. 1, 1354, a, 24: *οὐ γὰρ δεῖ τὸν δικαστὴν διαστρέφειν εἰς ὀργὴν προάγοντας ἢ φθόνον ἢ ἔλεον· ὅμοιον γὰρ κἂν εἴ τις, ᾧ μέλλει χρῆσθαι κανόνι, τοῦτον ποιήσειε στρεβλόν.* Cf. iii. 1, 1404, a, 4.

[4] *Ibid.* 1355, a, 20–b, 7; cf. iii. 1, 1404, a, 1 sqq.

[5] 1355, a, 14: rhetoric is based upon dialectic; *τό τε γὰρ ἀληθὲς καὶ τὸ ὅμοιον τῷ ἀληθεῖ τῆς αὐτῆς ἐστὶ δυνάμεως ἰδεῖν, ἅμα δὲ καὶ οἱ ἄνθρωποι πρὸς τὸ ἀληθὲς πεφύκασιν ἱκανῶς καὶ τὰ πλείω τυγχάνουσι τῆς ἀληθείας· διὸ πρὸς τὰ ἔνδοξα στοχαστικῶς ἔχειν τοῦ ὁμοίως ἔχοντος καὶ πρὸς τὴν ἀλήθειαν ἐστιν.* Cf. p. 256, n. 2, *supra.*

[6] *Ibid.* and 1355, b, 2: the misuse of the art of oratory is certainly very dangerous, but this is true of all accomplishments except virtue—the more so in proportion to their value.

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[1] Aristotle therefore treats rhetoric, not only as the counterpart of dialectic (*ἀντίστροφος τῇ διαλεκτικῇ*, *Rhet.* i. 1 *init.* — which, however, primarily refers merely to the fact that they both deal, not with the contents, but with the universal forms of thought and speech), but as a branch (see p. 185, n. 1, *supra*) and even as a part of it *μόριόν τι τῆς διαλεκτικῆς καὶ ὁμοίωμα* (*Rhet.* i. 2, 1356, a, 30—that SPENGEL, *Rhet. Gr.* i. 9, reads for *ὁμοίωμα* "*ὁμοία*," is for the question before us unimportant, but the alteration is not probable); a science compounded of analytic and ethics. In a word, it consists for the most part in an application of dialectic to certain practical problems (described p. 295, *infra*). While, therefore, we cannot directly apply to rhetoric all that is true of dialectic in general, and still less all that is true of it as applied to the service of philosophy, and while the distinctions which THUROT (*Etudes sur Aristote*, 154 sqq. 242 sq.; *Questions sur la Rhétorique d' Aristote*, 12 sq.) seeks to point out between the two sciences are, so far, for the most part well grounded, it does not follow from this that the above account of their relation to one another is incorrect, and that we have a right, with Thurot, to set aside the definite statement in *Rhet.* i. 2, by altering the text. For the orator's most important function, according to Aristotle, is demonstration, which, as only probable, falls within the sphere of dialectic (*Rhet.* i. 1, 1355, a, 3 sqq.); rhetoric is demonstration *ἐξ ἐνδόξων* in reference to the subjects which are proper to public speaking, as dialectic is a like kind of demonstration with reference to all possible subjects. Nor can we accept THUROT's proposal (*Etudes*, 248 sqq.) to read, *Rhet.* i. 1, 1355, a, 9, c. 2, 1356, a, 26, *Anal. Post.* i. 11, 77, a, 29, "*ἀναλυτικὴ*" instead of *διαλεκτική*. As the doctrine of *συλλογισμὸς ἐξ ἐνδόξων*, dialectic necessarily deals with inferences in general, and as it is precisely inferences of this kind which are the subject-matter of rhetoric, it is better to connect it with dialectic than with analytic, using *διαλεκτικὴ*,

Proofs, according to Aristotle, are divided into those which fall within the province of art and those which do not. Rhetoric as a science has to do only with the former.[2] These are of three kinds, according as they depend upon the subject, the speaker, or the hearer. A speaker will produce conviction if he succeeds in showing that his assertions are true and that he is himself worthy of credit, and if he knows how to create a favourable impression upon his hearers. Under the first of these heads, that of the subject-matter, we shall have to discuss demonstration; under the second, or the character of the speaker, the means which the orator takes to recommend himself to his audience; under the third, or the disposition of the hearers, the appeals that he makes to their emotions.[3] The first and most important part of rhetoric, therefore, falls into these three sections.[4]

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however, in a somewhat wide sense. On the relation of dialectic to rhetoric, see also WAITZ, *Arist. Org.* ii. 435 sq.

[1] Cf. vol. i. p. 74, *supra*; *Ph. d. Gr.* i. p. 389.

[2] *Rhet.* i. 2, 1355, b, 35: τῶν δὲ πίστεων αἱ μὲν ἄτεχνοί εἰσιν αἱ δ' ἔντεχνοι. ἄτεχνα δὲ λέγω ὅσα μὴ δι' ἡμῶν πεπόρισται ἀλλὰ προϋπῆρχεν, οἷον μάρτυρες βάσανοι συγγραφαὶ καὶ ὅσα τοιαῦτα, ἔντεχνα δὲ ὅσα διὰ τῆς μεθόδου καὶ δι' ἡμῶν κατασκευασθῆναι δυνατόν. ὥστε δεῖ τούτων τοῖς μὲν χρήσασθαι τὰ δὲ εὑρεῖν.

[3] i. 2, 1356, a, 1 sqq. ii. 1, 1377, b, 21 sqq. iii. 1, 1403, b, 9; cf. i. 8, 9, 1366, a, 8, 25.

[4] περὶ τὰς ἀποδείξεις, π. τὰ ἤθη, π. τὰ πάθη.

These, again, are found to deal with subjects of different intrinsic importance,[1] and it is therefore not unnatural that Aristotle should treat the first of them, the theory of demonstration, at the greatest length. Just as scientific proof proceeds by syllogism and induction, so rhetorical proceeds by enthymeme and instance.[2] The exposition of the various points of view from which a subject may be treated,[3] the topics of oratory, occupies a considerable portion of Aristotle's treatise; nor does he here limit himself to universal principles which are equally applicable to every kind of speech, but discusses those peculiarities in each which depend upon the particular aim it has in view and the character of its subject-matter;[4] he thus seeks to exhibit the principles of oratory, not only in respect to its general form, but also in respect to its particular matter. With this aim he distinguishes three different kinds or classes of speeches: deliberative, forensic, and declamatory.[1] The first of these has to do with advice and warning; the second, with indictment and defence; the third, with praise and blame. The first deals with the future; the second, with the past; the third, pre-eminently with the present. In the first, the question is of advantage and disadvantage; in the second, of right and wrong; in the third, of nobility and baseness.[2] Aristotle enumerates the topics with which each of these has to deal.[3] He indicates[4] the chief subjects upon which advice may be required in politics, and the questions which arise in connection with each, and upon which information must be sought. He discusses minutely the goal for which all human actions make—namely, happiness; its constituents and conditions;[5] the good and the things which we call good;[6] the marks by which we distinguish goods of a higher or a lower character;[7] and, finally, he gives a brief review of the distinguishing characteristics of the different forms of government, inasmuch as these must in each case determine both the orator's actual proposals and the attitude he assumes towards his hearers.[8] Similarly, with a view to the orator's practical guidance in the declamatory art, he enlarges upon the noble or honourable in conduct; upon virtue.

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[1] See p. 291, n. 2, *supra*.

[2] *Rhet.* i. 2, 1356, a, 35–1357, b, 37, where the nature of these means of proof is fully explained, cf. ii. 22 *init.*; *Anal. Pri.* ii. 27, 70, a, 10. An enthymeme, according to this passage, is a *συλλογισμὸς ἐξ εἰκότων ἢ σημείων*. *Rhet.* 1356, b, 4 gives another definition: *καλῶ δ' ἐνθύμημα μὲν ῥητορικὸν συλλογισμὸν, παράδειγμα δὲ ἐπαγωγὴν ῥητορικήν*; it comes, however, to the same thing, as the orator, *qua* orator, is limited to probable evidence.

[3] In *Rhet.* i. 2, 1358, a, 2, ii. 26 *init.*, and ii. 1 *init.*, Aristotle speaks only of the principles of the enthymeme; but as the example only calls to mind in an individual case what the enthymeme states in a universal proposition, his account refers, as a matter of fact, to demonstration in general, as he, indeed, also includes in it (*e.g.* ii. 20, c. 23, 1397, b, 12 sqq. 1398, a, 32 sqq.) example and induction.

[4] *Rhet.* i. 2, 1358, a, 2 sqq.: the enthymeme consists partly of universal propositions which belong to no special art or science and are applicable, *e.g.*, to physics as well as ethics, partly of such as are of limited application within the sphere of a particular science, *e.g.* physics or ethics; the former Aristotle calls *τόποι*, the latter *ἴδια* or *εἴδη*, remarking that the distinction between them, fundamental as it is, had almost entirely escaped his predecessors.

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[1] Aristotle was also undoubtedly the first to point out this important division, for we cannot regard the *Rhetorica ad Alexandrum* (c. 2 *init.*), as has been already remarked, vol. i. p. 74, *supra*, as pre-Aristotelian.

[2] *Rhet.* i. 3.

[3] See the more general remarks in *Rhet.* i. 4 *init.*

[4] *Ibid.* 1359, b, 18 sqq., where five are enumerated: revenue, war and peace, defence, exports, and imports, legislation.

[5] i. 5.

[6] i. 6.

[7] *Ibid.* c. 7.

[8] i. 8, cf. vol. ii. p. 240, n. 3, *sup.*

its chief forms, its outward signs and effects; and upon the method which the orator must adopt in treating of these subjects.[1] For behoof of the forensic orator, he discusses, in the first place, the causes and motives of unjust actions, and since pleasure as well as good (which has already been discussed) may be a motive, Aristotle goes on to treat of the nature and kinds of pleasure and the pleasurable.[2] He inquires what it is in the circumstances both of the perpetrator and of the sufferer of the wrong that tempts to its committal.[3] He investigates the nature, the kinds, and the degrees of crime;[4] and adds, finally, in this section rules for the employment of those proofs which lie outside the province of art, and which find a place only in a judicial trial.[5] The views he propounds on all these subjects agree, of course, entirely with what we already know of his ethical and political convictions, except that here, in accordance with the aim of the work, they are presented in a more popular, and therefore sometimes in a less accurate and scientific, form. Only after thus discussing the individual peculiarities of the different kinds of oratory does Aristotle proceed to investigate those forms of proof which are equally applicable to all,[6] discussing under this head the universal forms of demonstration—namely, enthymeme and instance, together with a few rhetorical commonplaces.[1] Of the two other means of proof, besides demonstration proper—namely, the personal recommendations of the speaker and the impression upon the audience—the former is only cursorily touched upon, as the rules relating to it are deducible from other parts of the argument.[2] On the other hand, Aristotle goes into minute detail on the subject of the emotions and their treatment: on anger and the means of arousing and soothing it;[3] on love and hatred, desire and aversion, and the means of exciting each of them;[4] likewise on fear, shame, good will, sympathy,[5] indignation,[6] envy, and jealousy.[7] To this he finally adds an account of the influence which the age and outward circumstances (τύχαι) of a man exercise upon his character and disposition.[8]

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[1] i. 9.

[2] i. 10 sq.

[3] πῶς ἔχοντες καὶ τίνας ἀδικοῦσιν, *Rhet.* i, 12.

[4] i. 13 sq., cf. c. 10 *init.*

[5] i. 15, cf. p. 293, n. 2, *supra.*

[6] ii. 18 (from 1391, b, 23 onwards), c. 26, if, that is to say, we place this section (see vol. i. p. 74, *supra*), with SPENGEL, before the first seventeen chapters of the second book. But even if, with BRANDIS (iii. 194 sq.) and THUROT (*Etudes sur Arist.* 228 sqq.), we take the traditional order as the original one, we must admit that the contents of the section are more in place here.

These observations conclude the first and most important section of the *Rhetoric*; the third book treats more shortly of style and arrangement. In regard to the former, a distinction is in the first place drawn between delivery and language. While desiderating a technical system of instruction in rhetorical delivery, the author regrets the influence which so external a matter exercises on the general effect of a speech.[1] He next calls attention to the distinction between the language of the orator and of the poet, demanding of the former, as its two most essential requirements, clearness and dignity,[2] and advising as the means best fitted to secure them that the speaker should confine himself to appropriate expressions and effective metaphors,[3] upon the qualities and conditions of which he proceeds to enlarge.[4] He treats further of propriety of language,[5] fullness and suitability of expression,[6] rhythm and structure of the sentences,[7] grace and lucidity of presentation.[8] He examines, finally, the tone that should be adopted in written or oral discourse, and in the different kinds of oration.[9] It is impossible, however, to give here in detail the many striking observations which the writer makes upon these subjects. They clearly show that even if the book did not come direct from Aristotle in its present form, it is yet founded upon his teaching.

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[1] According to the announcement made c. 18 *fin.*, c. 19 treats especially of possibility and impossibility, actual truth and falsehood, relative importance and unimportance (περὶ δυνατοῦ καὶ ἀδυνάτου, καὶ πότερον γέγονεν ἢ οὐ γέγονεν καὶ ἔσται ἢ οὐκ ἔσται, ἔτι δὲ περὶ μεγέθους καὶ μικρότητος τῶν πράγματων, 1393, a, 19); c. 20 of illustration, c. 21 of gnomology; c. 21–26 of enthymemes, for which Aristotle gives, not only general rules (c. 22), but a complete topical account of the forms employed in proof and disproof (c. 23); of fallacies (c. 24); of instances for combating enthymemes (c. 25).

[2] ii. 1378, a, 6: to recommend him to his audience the orator must get credit for three things: insight, uprightness and benevolence: ὅθεν μὲν τοίνυν φρόνιμοι καὶ σπουδαῖοι φανεῖεν ἂν, ἐκ τῶν περὶ τὰς ἀρετὰς διῃρημένων (i. 9; see p. 296, n. 1, *sup.*) ληπτέον . . . περὶ δ' εὐνοίας καὶ φιλίας ἐν τοῖς περὶ τὰ πάθη λεκτέον νῦν.

[3] ii. 2, 3.

[4] c. 4.

[5] c. 5–8.

[6] The displeasure at the unmerited fortune of unworthy persons (νέμεσις), the account of which in *Rhet.* ii. 9 harmonises with that in *Eth.* ii. 7 (see p. 169).

[7] ii. 10, 11.

[8] ii. 12–17.

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[1] iii. 1, 1403, b, 21–1404, a, 23. Aristotle does not go fully into the discussion of what is good or bad delivery; he merely remarks that it depends upon the voice—especially upon its power, melody (*ἁρμονία*) and rhythm.

[2] *τὸ πρέπον*, the proper mean between *τὸ ταπεινὸν* and *τὸ ὑπὲρ τὸ ἀξίωμα*, between a bald and an overloaded style.

[3] iii. 1 sq. 1404, a, 24–b, 37.

[4] *Ibid.* to c. 4 *fin.*

[5] *τὸ ἑλληνίζειν*, iii. 5, in which, besides correct gender, number and syntax, are included definiteness and unambiguousness of expression, as well as *τὸ εὐανάγνωστον* and *εὔφραστον*.

[6] *ὄγκος τῆς λέξεως*, c. 6, *τὸ πρέπον τ. λέξ.* c, 7, which consists chiefly in the true relation between matter and style.

[7] The former c. 8, the latter c. 9.

[8] The *ἀστεῖον* and *εὐδοκίμουν*, the *πρὸ ὀμμάτων ποιεῖν*, &c., c. 10 sq.

[9] c. 12.

In the last section of the *Rhetoric*, which treats of arrangement, prominence is in the first place given to two indispensable parts of every speech: the presentation of the subject-matter,[1] and the demonstration. To these are added in the majority of speeches an introduction and a conclusion, so that there are four chief parts in all.[2] The method of treatment which each of these parts demands, and the rules both for their arrangement and execution which the character of the circumstances require, are discussed with great knowledge and penetration. And just as Aristotle's theory of oratory as a whole does not neglect the external aids to success, so here also devices are touched upon which are permitted to the orator only in consideration of the weakness of his hearers or of his case.[3] The *Rhetoric* stands in this respect also as the exact counterpart of the *Topics*. But here, as there, it is impossible to follow these discussions into greater detail.

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[1] *πρόθεσις*, *expositio*. Narration is merely a particular kind of it which is employed only in forensic speeches; c. 13, 1414, a, 34 sqq.

[2] c. 13. In accordance with this division Aristotle discusses first (c. 14 sq.) the introduction, secondly (c. 16) the exposition of the subject (which, however, he here again calls *δίηγησις*), c. 17 sq. the proofs, c. 19 the conclusion.

[3] Cf. *e.g.* c. 14, 1415, b, 4: *δεῖ δὲ μὴ λανθάνειν ὅτι πάντα ἔξω τοῦ λόγου τὰ τοιαῦτα· πρὸς φαῦλον γὰρ ἀκροατὴν καὶ τὰ ἔξω τοῦ πράγματος ἀκούοντα, ἐπεὶ ἂν μὴ τοιοῦτος ᾖ οὐθὲν δεῖ προοιμίου, ἀλλ' ἢ ὅσον τὸ πρᾶγμα εἰπεῖν κεφαλαιωδῶς, ἵνα ἔχῃ ὥσπερ σῶμα κεφαλήν.*

CHAPTER XV

THE PHILOSOPHY OF ART[1]

BESIDES knowledge and action, Aristotle distinguishes, as a third branch, artistic production, and to theoretic and practical he adds poetic science.[2] The latter, however, he fails to treat with the same comprehensive grasp as the two former. Of such of his works as have come down to us only one is devoted to art, and that not to art as a whole, but to the art of poetry; and even this we possess only in an imperfect form. But even of those which are lost none treated of art, or even of fine art, in a comprehensive manner.[3] Apart from a book upon Music, whose genuineness is highly doubtful,[1] we hear only of historical and dogmatic treatises upon poets and the art of poetry, among which some were probably likewise spurious. We cannot, therefore, look to Aristotle for a complete theory of art; nor are his views even upon the art of poetry fully known to us from the sources which we possess.

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[1] E. MÜLLER, *Gesch. der Theorie der Kunst bei den Alten*, ii. 1–181 BRANDIS, ii. b, 1683 sqq. iii. 156–178; TEICHMÜLLER, *Arist. Forsch.* vol. i. ii. 1867, 1869; REINKENS, *Arist. über Kunst bes. üb. Tragödie*, 1870; DÖRING, *Kunstlehre d. Arist.* 1876. For further literature on the subject see below and cf. UEBERWEG, *Grundr.* i. 204 sq.; cf. SUSEMIHL, *Jahrb. f. Philol.* lxxxv. 395 sqq. xcv. 150 sqq. 221 sqq. 827 sqq. cv. 317 sqq., in the preface and notes to his edition of the *Poetics* (2 ed. 1874), and in *Bursian's Jahresbericht* for 1873, p. 594 sqq. 1875, p. 381 sqq. 1876, p. 283 sqq.

[2] See vol. i. pp. 106 sq., 182.

[3] There is, according to Aristotle, a great difference between these; to *τέχνη* belong all the products of intelligence, beautiful and useful alike; see *inter alia* p. 107, n. 2, *sup.*; *Metaph.* i. 1, 981, b, 17, 21. While remarking, *Metaph. ibid.*, that some of the *τέχναι* serve *πρὸς τἀναγκαῖα*, others *πρὸς διαγωγήν*, while *αἵ μὴ πρὸς ἡδονὴν μηδὲ πρὸς τἀναγκαῖα τῶν ἐπιστημῶν* are different from both, he fails, nevertheless, to give any fuller account of the marks which distinguish the fine from the merely useful arts—in *Phys.* ii. 8, 199, a, 15 he is discussing, not (as TEICHMÜLLER,

Aristotle's philosophy of art is founded, like Plato's,[2] not on the conception of beauty in the abstract, but on that of art. The conception of beauty remains vague and undefined to the last. In dealing with moral beauty Aristotle compares the beautiful with the good inasmuch as the latter is desirable on its own account,[3] remarking at the same time elsewhere that, looked at from other points of view, it is as compared with

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Ar. Forsch. ii. 89 sqq. believes) two kinds of arts, but a twofold relation of art generally to nature. Cf. p. 303, n. 3, *infra*, and DÖRING, p. 80 sq.

[1] On this treatise see vol. i. p. 103, n. 1, *supra*. The fragment in PLUT. *De Mus.* 23, p. 1139, which ROSE (*Fragm.* 43, p. 1482) and HEITZ (*Fr.* 75, p. 53) refer to the *Eudemus*, but for which a suitable place could hardly be found in this dialogue, seems to me to come from it. We cannot, however, regard this little piece, with its Pythagoreanism and copious style, as Aristotle's work.

[2] Of which account is given *Ph. d. Gr.* i. p. 795. BELGER, *De Arist. in Arte Poëtica componenda Platonis discipulo*, gives a full and careful account of the points in which Aristotle's theory of art agrees with Plato's, and those in which it differs from it.

[3] *Rhet.* i. 9, 1366, a, 33: καλὸν μὲν οὖν ἐστὶν ὃ ἂν δι' αὑτὸ αἱρετὸν ὂν ἐπαινετὸν ᾖ, ἢ ὃ ἂν ἀγαθὸν ὂν ἡδὺ ᾖ, ὅτι ἀγαθόν. ii. 13, 1389, b, 37: τὸ καλὸν as distinguished from τὸ συμφέρον or that which is good for the individual is the ἁπλῶς ἀγαθόν. Of the numberless passages in which τὸ καλὸν is used of moral beauty, *i.e.* of goodness, several have already come before us, *e.g.* p. 149, n. 3, p. 151, n. 2, and p. 192, n. 6, *supra*. We cannot find, however, in Aristotle (as P. RÉE, **Τοῦ καλοῦ** *notio in Arist. Eth.* Halle, 1875, attempts to do) any more accurate definition of this conception; neither in the ethical nor in the æsthetic field does he seem to have felt the need of such definition.

goodness a wider conception, for while the term good is applied only to certain actions, beauty is predicated also of what is unmoved and unchangeable.[1] As the essential marks of beauty he indicates, at one time order, symmetry and limitation,[2] at another right size[3] and order.[4] And yet how vague the conception of beauty is still left, and especially how remote is held to be its relation to sensible appearance, is obvious above all from the assertion[5] that it is chiefly in the mathematical sciences that the above characteristics find their application. If beauty is a quality not less of a scientific investigation or a good action than of a work of art, it is too vague a concept to serve as the foundation of a philosophy of art. Aristotle accordingly at the beginning of the *Poetics* sets it wholly aside,[1] and starts from the consideration of the nature of Art.[2] The essence of art Aristotle, like Plato, finds, generally speaking, to be imitation.[3] It has its origin

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[1] *Metaph.* xiii. 3, 1078, a, 31: *ἐπεὶ δὲ τὸ ἀγαθὸν καὶ τὸ καλὸν ἕτερον, τὸ μὲν γὰρ ἀεὶ ἐν πράξει, τὸ δὲ καὶ ἐν τοῖς ἀκινήτοις.* Accordingly Mathematics (whose object, according to p. 183, is the unmoved) has to deal in a special sense with the beautiful. Aristotle applies, indeed, good as well as beautiful to the deity, who is absolutely unmoved (cf. p. 397, n. 3, and p. 404, *supra*), as he attributes to Him *πρᾶξις* in the wider sense (vol. i. p. 400, n. 1, *ad fin.*). But this does not justify us in converting the passage before us (as TEICHMÜLLER does, *Arist. Forsch.* ii. 209, 255 sqq.) into the opposite of its plain sense. It offers merely a further proof of the uncertainty of Aristotle's language with reference to *τὸ ἀγαθὸν* and *τὸ καλόν*. In *Metaph.* xiii. 3 he is thinking only of good in the ethical sense.

[2] *Metaph. ibid.* l. 36: *τοῦ δὲ καλοῦ μέγιστα εἴδη τάξις καὶ συμμετρία καὶ τὸ ὡρισμένον.* The *εἴδη* here are not different kinds of beauty, but the forms or qualities of things in which beauty reveals itself. How these points of view are maintained in Aristotle's rules of art is shown by MÜLLER, p. 9 sqq., who compares also *Probl.* xix. 38, xvii. 1.

[3] Practically identical with *τὸ ὡρισμένον*, as DORING rightly observes, p. 97.

[4] *Poet.* 7, 1450, b, 36 (cf. *Pol.* vii. 4, 1326, a, 29 sqq. b, 22; see p. 259, n. 1, *supra*, also *Eth.* iv. 3, 1123, b, 6): *τὸ γὰρ καλὸν ἐν μεγέθει καὶ τάξει ἐστὶ, διὸ οὔτε πάμμικρον ἄν τι γένοιτο καλὸν ζῷον (συγχεῖται γὰρ ἡ θεωρία ἐγγὺς τοῦ ἀναισθήτου χρόνου γινομένη) οὔτε παμμέγεθες· οὐ γὰρ ἅμα ἡ θεωρία γίνεται, ἀλλ' οἴχεται τοῖς θεωροῦσι τὸ ἓν καὶ τὸ ὅλον ἐκ τῆς θεωρίας, οἷον εἰ μυρίων σταδίων εἴη ζῷον.* As a visible object must be easily taken in by the eye by virtue of its size, so a mythus must be easy to retain. The parenthesis (*συγχεῖται γὰρ*, &c.) means: if an object is too small, its parts become merged in each other, and no clear picture of it is possible. It is probable that *χρόνου* after *ἀναισθήτου* has crept into the text from *Phys.* iv. 13, 222, b, 15 (see BONITZ, *Arist. Stud.* i. 96; SUSEMIHL, *in loco*).

[5] *Metaph. ibid.* 1078, b, 1. In reply to TEICHMÜLLER's objections to the above remark

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(*Arist. Forsch.* ii. 275 sq.), SUSEMIHL (*Jahrb. f. Philol.* cv. p. 321) has pointed out the confusion between the concrete phenomena of sense (*e.g.* colours, sounds, &c.) and the abstract, mathematical forms of sensible existence.

[1] The words here used, πῶς δεῖ συνίστασθαι τοὺς μύθους, εἰ μέλλει καλῶς ἕξειν ἡ ποίησις (TEICHMÜLLER, ii. 278), are of course no argument against this view. It is hardly necessary to point out that such expressions as καλῶς ἔχειν, καλῶς λέγειν, &c. (*e.g.* in *Meteor.* i. 14, 352, a, 7, 11; *Polit.* iv. 14, 1297, b, 38; *Metaph.* xiii. 6 *init.*; *Eth.* vii. 13, and innumerable other passages), have nothing to do with the specifically aesthetic meaning of τὸ καλόν.

[2] TEICHMÜLLER, indeed, in a detailed discussion of beauty and the 'four aesthetic ideas' (order, symmetry, limitation and size), *ibid.* p. 208–278, has attempted to show that Aristotle's theory of art is based upon the conception of beauty. This attempt, however, is rightly discredited by DÖRING, p. 5 sqq. 93, sqq. If the abstract conception of beauty had been his starting point in his theory of art, Aristotle would have devoted himself before everything else to its closer investigation, and would have used the result of this investigation as the criterion of the claims of art. This, however, he does not do: and while, of course, he demands of a work of art that it should be beautiful, while he speaks of a καλῶς ἔχων μῦθος, a μῦθος καλλίων, a καλλίστη τραγῳδία, &c. (*Poet.* c. 9 *fin.* c. 11, 1452, a, 32, c. 13, 1452, b, 31, 1453, a, 12, 22, and *passim*), yet he never deduces any rule of art from the universal conception of beauty, but rather from the special aim of a particular art.

[3] *Poet.* i. 1447, a, 12 (on the different forms of poetry and music): πᾶσαι τυγχάνουσιν οὖσαι μιμήσεις τὸ σύνολον. c. 2 *init.* c. 3 *init.* and often. In the words, *Phys.* ii. 8, 199, a, 15, ὅλως τε ἡ τέχνη τὰ μὲν ἐπιτελεῖ ἃ ἡ φύσις ἀδυνατεῖ ἀπεργάσασθαι, τὰ δὲ μιμεῖται, art is used as fine art. It is mere imitation, but it may, indeed, be also regarded as a perfecting of nature, as in the training of the voice or deportment.

in the imitative instinct and the joy felt in its exercise which distinguishes man above all other creatures; hence also the peculiar pleasure which art affords.[1] In this pleasure, springing as it does from the recognition of the object represented in the picture and from the enjoyment thus obtained, Aristotle further recognises an intimation of the universal desire for knowledge.[2] But as knowledge is of very different value according to the nature of the object known,[3] this will of necessity be true of artistic imitation also. The object of imitation in art is, generally speaking, nature or the actual world of experience.[4] But nature includes man and his actions; indeed, it is with man alone that the most impressive arts—viz. poetry and music—have to do;[5] and the object which it is the essential aim of the imitative artist to represent consists not merely of the outward appearance of things, but to a much greater degree of their inner intelligible essence. He may confine himself to what is universal and actual, or he may rise above it, or he may sink below it.[1] He may represent things as they are, or as they are commonly supposed to be, or as they ought to be.[2] It is in representations of this last kind that the chief function of art consists. Art according to Aristotle must represent not the individual as such, but the universal, the necessary and the natural. It must not be content to reflect naked reality but must idealise it. The painter, for instance, must both be true to his subject and improve upon it;[3] the poet must tell us, not what has been, but what must be according to the nature of the case, and on this account Aristotle prefers poetry to history, as higher and more nearly allied to philosophy, seeing that it reveals to us not only individual facts but universal laws.[4] And this holds not only of serious poetry but also of comic. The former in bringing before us forms which transcend ordinary limits must give us an ennobled picture of human nature, for it must represent typical characters in whom the true nature of certain moral qualities is sensibly exhibited to us;[1] but the latter also, although dealing necessarily with the weaknesses of human nature,[2] must nevertheless make it its chief end not to attack individuals but to present types of character.[3] While,

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[1] *Poet.* 4 *init.*, where it is added: this is obvious from the fact that good pictures delight us even when the objects represented produce themselves quite the opposite impression: as in the case of loathsome animals or corpses. Cf. foll. n.

[2] *Poet.* 4, 1448, b, 12, Aristotle continues: αἴτιον δὲ καὶ τούτου [joy in works of art], ὅτι τὸ μανθάνειν οὐ μόνον τοῖς φιλοσόφοις ἥδιστον, ἀλλὰ καὶ τοῖς ἄλλοις ὁμοίως· ἀλλ' ἐπὶ βραχὺ κοινωνοῦσιν αὐτοῦ. διὰ γὰρ τοῦτο χαίρουσι τὰς εἰκόνας ὁρῶντες, ὅτι συμβαίνει θεωροῦντας μανθάνειν καὶ συλλογίζεσθαι τί ἕκαστον, οἷον ὅτι οὗτος ἐκεῖνος, ἐπεὶ ἐὰν μὴ τύχῃ προεωρακὼς, οὐ διὰ μίμημα ποιήσει τὴν ἡδονὴν ἀλλὰ διὰ τὴν ἀπεργασίαν ἢ τὴν χροιὰν ἢ διὰ τοιαύτην τινὰ ἄλλην αἰτίαν. *Rhet.* i. 11, 1371, b, 4: ἐπεὶ δὲ τὸ μανθάνειν τε ἡδὺ καὶ τὸ θαυμάζειν, καὶ τὰ τοιάδε ἀνάγκη ἡδέα εἶναι οἷον τό τε μεμιμημένον, ὥσπερ γραφικὴ καὶ ἀνδριαντοποιία καὶ ποιητικὴ, καὶ πᾶν ὃ ἂν εὖ μεμιμημένον ᾖ, κἂν ᾖ μὴ ἡδῦ αὐτὸ τὸ μεμιμημένον· οὐ γὰρ ἐπὶ τούτῳ χαίρει, ἀλλὰ συλλογισμός ἐστιν ὅτι τοῦτο ἐκεῖνο, ὥστε μανθάνειν τι συμβαίνει.

[3] Cf. p. 303, n. 3, *supra*.

[4] *Phys.* ii. 8: see p. 303, n. 3.

[5] Cf. foll. n. and page. Even of the art of dancing it is said, c. 1. 1447, a, 27: καὶ γὰρ οὗτοι διὰ τῶν σχηματιζομένων ῥυθμῶν μιμοῦνται καὶ ἤθη καὶ πάθη καὶ πράξεις.

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[1] *Poet.* 2 *init.*: ἐπεὶ δὲ μιμοῦνται οἱ μιμούμενοι πράττοντας, ἀνάγκη δὲ τούτους ἢ σπουδαίους ἢ φαύλους εἶναι . . . ἤτοι βελτίονας ἢ καθ' ἡμᾶς ἢ χείρονας ἢ καὶ τοιούτους, which Aristotle proceeds to illustrate from painting, poetry, and music.

[2] *Ibid.* 25, 1460, b, 7: ἐπεὶ γάρ ἐστι μιμητὴς ὁ ποιητής, ὥσπερ ἂν εἰ ζωγράφος ἤ τις ἄλλος εἰκονοποιός, ἀνάγκη μιμεῖσθαι τριῶν ὄντων τὸν ἀριθμὸν ἕν τι ἀεί· ἢ γὰρ οἷα ἦν ἢ ἔστιν, ἢ οἷα φασὶ καὶ δοκεῖ, ἢ οἷα εἶναι δεῖ. We may regard these words as genuine, although they stand in a rather suspicious section.

[3] *Poet.* 15, 1454, b, 8: ἐπεὶ δὲ μίμησίς ἐστιν ἡ τραγῳδία βελτιόνων, ἡμᾶς δεῖ μιμεῖσθαι τοὺς ἀγαθοὺς εἰκονογράφους· καὶ γὰρ ἐκεῖνοι ἀποδιδόντες τὴν ἰδίαν μορφὴν, ὁμοίους ποιοῦντες, καλλίους γράφουσιν. The idealism of the Greek statues of the gods did not, of course, escape the philosopher's notice; cf. vol. ii. p. 217, n. 5, *supra*.

[4] *Poet.* 9 *init.*: οὐ τὸ τὰ γινόμενα λέγειν, τοῦτο ποιητοῦ ἔργον ἐστὶν, ἀλλ' οἷα ἂν γένοιτο, καὶ τὰ δυνατὰ κατὰ τὸ εἰκὸς ἢ τὸ ἀναγκαῖον. ὁ γὰρ ἱστορικὸς καὶ ὁ ποιητὴς οὐ τῷ ἔμμετρα λέγειν ἢ ἄμετρα διαφέρουσιν· εἴη γὰρ ἂν τὰ Ἡροδότου εἰς μέτρα τεθῆναι, καὶ οὐδὲν ἧττον ἂν εἴη ἱστορία τις μετὰ μέτρου ἢ ἄνευ μέτρων, ἀλλὰ τούτῳ διαφέρει, τῷ τὸν μὲν τὰ γενόμενα λέγειν, τὸν δὲ οἷα ἂν γένοιτο. διὸ καὶ φιλοσοφώτερον καὶ σπουδαιότερον ποίησις ἱστορίας ἐστίν· ἡ μὲν

γὰρ ποίησις μᾶλλον τὰ καθόλου, ἡ δ' ἱστορία τὰ καθ' ἕκαστον λέγει. ἔστι δὲ καθόλου μὲν, τῷ ποίῳ τὰ ποῖ' ἄττα συμβαίνει λέγειν ἢ πράττειν κατὰ τὸ εἰκὸς ἢ τὸ ἀναγκαῖον . . . τὰ δὲ καθ' ἕκαστον, τί Ἀλκιβιάδης ἔπραξεν ἢ τί ἔπαθεν. *Ibid.* 1451, b, 29: κἂν ἄρα συμβῇ γενόμενα ποιεῖν [τὸν ποιητὴν] οὐθὲν ἧττον ποιητής ἐστιν· τῶν γὰρ γενομένων ἔνια οὐδὲν κωλύει τοιαῦτα εἶναι οἷα ἂν εἰκὸς γενέσθαι καὶ δυνατὰ γενέσθαι. Cf. c. 15, 1454, a, 33: χρὴ δὲ καὶ ἐν τοῖς ἤθεσιν ὥσπερ καὶ ἐν τῇ τῶν πραγμάτων συστάσει, ἀεὶ ζητεῖν ἢ τὸ ἀναγκαῖον ἢ τὸ εἰκὸς, ὥστε τὸν τοιοῦτον τὰ τοιαῦτα λέγειν ἢ πράττειν ἢ ἀναγκαῖον ἢ εἰκὸς, καὶ τοῦτο μετὰ τοῦτο γίνεσθαι ἢ ἀναγκαῖον ἢ εἰκός. C. 1, 1447, b, 13 sqq.: it is not the metre but the content that makes the poet. Empedocles (whose Homeric power Aristotle praises in *Diog.* viii. 56) has nothing but the metre in common with Homer.

[1] *Poet.* 15 (see p. 305, n. 3, *supra*), Aristotle continues: οὕτω καὶ τὸν ποιητὴν μιμούμενον καὶ ὀργίλους καὶ ῥᾳθύμους καὶ τἆλλα τὰ τοιαῦτα ἔχοντας ἐπὶ τῶν ἠθῶν, ἐπιεικείας ποιεῖν παράδειγμα ἢ σκληρότητος δεῖ &c. Cf. following note and c. 13, 1453, a, 16.

[2] C. 2 *fin.*: ἡ μὲν γὰρ [comedy] χείρους ἡ δὲ βελτίους μιμεῖσθαι βούλεται τῶν νῦν. C. 5 *init.*: ἡ δὲ κωμῳδία ἐστὶν, ὥσπερ εἴπομεν, μίμησις φαυλοτέρων μὲν, οὐ μέντοι κατὰ πᾶσαν κακίαν, ἀλλὰ τοῦ αἰσχροῦ ἐστὶ τὸ γελοῖον μόριον. τὸ γὰρ γελοῖόν ἐστιν ἁμάρτημά τι καὶ αἶσχος ἀνώδυνον καὶ οὐ φθαρτικόν.

[3] Cf. *Poet.* 9, 1451, b, 11 sqq. c. 5, 1449, b, 5; *Eth.* iv. 14, 1128, a, 22. Aristotle here gives the New Comedy the preference over the Old because it refrains from abuse (αἰσχρολογία). He gives Homer, moreover, the credit (*Poet.* 4, 1448, b, 34) of being creator, in the character of Margites, of comedy, οὐ ψόγον ἀλλὰ τὸ γελοῖον δραματοποιήσας. The *Poetics* are doubtless the source (cf. vol. i. p. 102, n. 2) of the remark in CRAMER'S *Anecd. Paris.* Append. I. (*Arist. Poet.* p. 78; VAHL. p. 208; *Fr.* 3 SUS.): διαφέρει ἡ κωμῳδία τῆς λοιδορίας, ἐπεὶ ἡ μὲν λοιδορία ἀπαρακαλύπτως τὰ προσόντα κακὰ διέξεισιν, ἡ δὲ δεῖται τῆς καλουμένης ἐμφάσεως [indication]. To this subject belongs the remark in *Rhet.* iii. 18, 1419, b, 7, where it is said that εἰρωνεία is more worthy of the freeman than βωμολοχία. This also had

therefore, Plato and Aristotle agree in regarding art as a species of imitation, they draw very different conclusions from this account of it. Plato thinks of it only as the imitation of sensible phenomena and accordingly expresses the utmost contempt for the falsity and worthlessness of art;[1] Aristotle, on the other hand, looks upon artistic presentation as the sensible vehicle to us of universal truths and thus places it above the empirical knowledge of individual things.

We are now in a position to explain what Aristotle says about the aim and the effect of Art. In two passages[2] to which we have already had occasion to refer, he distinguishes four different uses of

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been particularly treated of by Aristotle in the *Poetics* (*Rhet.* i. 11, 1372, a, 1: διώρισται δὲ περὶ γελοίων χωρὶς ἐν τοῖς περὶ ποιητικῆς: cf. VAHLEN, *ibid.* p. 76; *Fr.* 2), from which must come *Fr.* 9 of the *Anecd. Paris. ibid.*: ἤθη κωμῳδίας τά τε βωμολόχα καὶ τὰ εἰρωνικὰ καὶ τὰ τῶν ἀλαζόνων.

[1] See *Ph. d. Gr.* i. p. 799—a view which is not consistent with the fact that art is at the same time regarded as one of the most important means of education whose function is the presentation of moral ideas (*ibid.* p. 532 sq. 772 sq. 800 sq; cf. *Symp.* 209 D).

[2] *Pol.* viii. 5, 7, see p. 266, *supra.* In the former of these passages no mention is made of purification; it is merely asked (1339, a, 15): τίνος δεῖ χάριν μετέχειν αὐτῆς, πότερον παιδιᾶς ἕνεκα καὶ ἀναπαύσεως . . . ἢ μᾶλλον οἰητέον πρὸς ἀρετήν τι τείνειν τὴν μουσικὴν, ὡς δυναμένην . . . τὸ ἦθος πυιόν τι ποιεῖν, ἐθίζουσαν δύνασθαι χαίρειν ὀρθῶς. ἢ πρὸς διαγωγήν τι συμβάλλεται καὶ φρόνησιν· καὶ γὰρ τοῦτο τρίτον θετέον τῶν εἰρημένων. On the other hand it is very definitely referred to in the second (1341, b, 36): φαμὲν δ' οὐ μιᾶς ἕνεκεν ὠφελείας τῇ μουσικῇ χρῆσθαι δεῖν ἀλλὰ καὶ πλειόνων χάριν (καὶ γὰρ παιδείας ἕνεκεν καὶ καθάρσεως . . . τρίτον δὲ πρὸς διαγωγὴν, πρὸς ἄνεσίν τε καὶ πρὸς τὴν τῆς συντονίας ἀνάπαυσιν). But, on this account, to change the text of the latter passage with SPENGEL (*Ueber die* κάθαρσις τῶν παθημάτων, *Abh. der philos.-philol. Kl. der Bayr. Akad.* ix. 1, 16 sq.), and to read: καὶ γὰρ παιδείας ἕνεκεν καὶ καθάρσεως, . . . πρὸς διαγωγὴν, τρίτον δὲ πρὸς ἄνεσίν τε &c. or κ. γ. παιδ. ἕν. κ. καθάρσ., πρὸς ἄνεσίν τε—ἀνάπαυσιν, τρίτον δὲ πρὸς διαγωγὴν, is a violent expedient against which BERNAYS (*Rhein. Mus.* xiv. 1859, p. 370 sqq.) rightly

music[1]: it serves (i) as a relaxation and amusement; (ii) as a means of moral culture; (iii) as an enjoyable exercise; and (iv) as a purifying influence. Whether each form of art has this fourfold function or not, he does not expressly say; nor could he in any case have regarded them as all alike in this respect. Of the plastic arts he remarks that their ethical effect, although considerable, is inferior to that of music,[2] while he probably hardly thought of attributing a purifying influence to them. Where they confine themselves to the exact imitation of particular objects, they serve in his view no higher purpose than the satisfaction of a rather shallow

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protests. The first of these proposals is hardly permissible, even from the point of view of style, while neither of them finds any support in the alleged contradiction between c. 5 and c. 7, as it is not unfrequently the case in Aristotle that a preliminary division is supplemented in the sequel (cf. *e.g.* what is said, vol. i. p. 400, sqq., on the different classifications of constitution); both, moreover, are inconsistent with the distinction between edifying and purifying music, as that is definitely set forth in c. 7, and calls for immediate notice.

[1] Not merely three, as BERNAYS *ibid.* represents by taking ἀνάπαυσις and διαγωγὴ together. Aristotle differentiates the two very clearly: young people, he says, are incapable of διαγωγὴ, whereas they are very much inclined to παιδιὰ and ἄνεσις (see vol. ii. p. 267, n. 1, *supra*); the former is an end in itself [τέλος], the latter a mere means (c. 5, 1339, a, 29, b, 25–42; cf. *Eth.* x. 6, 1176, b, 27 sqq. p. 140, *supra*); the former presupposes a higher culture (see p. 309, n. 3, *infra*), not so the latter: and accordingly they are completely separated from one another, 1339, a, 25, b, 13, 15 sqq., *ibid.* 4; cf. a, 33. Cf. p. 266, n. 5, *supra.*

[2] *Pol.* viii. 5, 1340, a, 28: συμβέβηκε δὲ τῶν αἰσθητῶν ἐν μὲν τοῖς ἄλλοις μηδὲν ὑπάρχειν ὁμοίωμα τοῖς ἤθεσιν, οἷον ἐν τοῖς ἁπτοῖς καὶ τοῖς γευστοῖς, ἀλλ᾽ ἐν τοῖς ὁρατοῖς ἠρέμα· σχήματα γάρ ἐστι τοιαῦτα (*i.e.* moral attitudes and gestures), ἀλλ᾽ ἐπὶ μικρὸν καὶ πάντες [read οὐ πάντες, as MÜLLER *ibid.* 10 sq. 348 sqq. conjectures] τῆς τοιαύτης αἰσθήσεως κοινωνοῦσιν. ἔτι δὲ οὐκ ἔστι ταῦτα ὁμοιώματα τῶν ἠθῶν, ἀλλὰ σημεῖα μᾶλλον τὰ γιγνόμενα σχήματα καὶ χρώματα τῶν ἠθῶν. Nevertheless, young men ought not, ὅσον διαφέρει καὶ περὶ τὴν τούτων θεωρίαν, to be allowed to study the pictures of a Pauson but those of a Polygnotus κἂν εἴ τις ἄλλος τῶν γραφέων ἢ τῶν ἀγαλματοποιῶν ἐστὶν ἠθικός.

curiosity.[1] Nor does he seem to expect from Comedy (on which see below) either morally edifying or purifying results. On the other hand, the purification of the emotions is the chief end, as we shall see, of serious poetry, although that art is not, of course, thereby excluded from exercising upon the hearer other effects as well which are either connected with or flow from the first. Granted that a part of this effect—viz. the amusement—is due to the pleasure derived from sensible appearance, yet the higher and more valuable portion is due to that ideal content which, according to Aristotle, it is the function of Art to present. As a means to nobler intellectual enjoyment (*διαγωγὴ*) the higher poetry must appeal to our reason, since according to Aristotelian principles the measure of our rational activity is also the measure of our happiness;[2] and, as a matter of fact, Aristotle regards this purifying effect of art as standing in the closest relation to intellectual culture.[3] In like manner poetry can only serve for moral edification by exhibiting to us the nature and aim of moral action in examples that excite our admiration or abhorrence, as Aristotle holds it ought undoubtedly to do.[4] Finally, as to the purifying effect of Art, we must admit that to this day, after all the endless discussions to which Aristotle's definition of Tragedy has given rise,[1] no agreement has been arrived at upon the question wherein, according to his view, it consists and what are the conditions of its production. This is, however, the less extraordinary, since in the extant portion of the *Poetics* the fuller discussion of 'purification' contained in the original work is missing,[2] though the want may be partly supplied from other passages. These show, in the first place, that the purification of the emotions which is effected by art takes place not in the work of art itself, but in those who see or hear it.[3] We further learn that the immediate object is not, as was formerly supposed,[4] moral improvement, but primarily the production of an effect upon the emotions. Aristotle himself definitely distinguishes between purification and moral culture as separate aims:[1] he would use for the latter as opposed to the former a style of music which is wholly different and requires different treatment.[2] He describes purification, moreover, as a species of healing and as a

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[1] Cf. vol. ii. p. 304, n. 2, *sup.*

[2] See the quotations from *Eth.* x. 8, *sup.* vol. ii. p. 143, n. 1.

[3] In the words quoted from *Pol.* viii. 5, p. 307, n. 2, *supra*: πρὸς διαγωγήν τι συμβάλλεται καὶ φρόνησιν. SPENGEL, *ibid.* p. 16, and independently of him THUROT, *Etudes sur Arist.* 101, propose to read, instead of φρόνησιν, εὐφροσύνην (or τὸ εὐφραίνειν), remarking that φρόνησις would not belong to διαγωγὴ but to the previously mentioned ἀρετή. This, however, is incorrect. By ἀρετὴ Aristotle means moral virtue, the training of character; by διαγωγὴ καὶ φρόνησις, the training of the intellect and the taste. Cf. what was said about διαγωγὴ *supra*, vol. ii. p. 266, n. 5.

[4] See p. 304 sq.

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[1] For a review of these see SUSEMIHL, *Arist. π. ποιητ.* p. 36 sqq. and elsewhere (see p. 300, n. 1); REINKENS, p. 78–135, and DÖRING, p. 263 sqq. 339 sq.; the last discusses some seventy essays and treatises bearing on the subject, most of them written within the previous fifteen years.

[2] See *supra*, vol. i. p. 102, n. 2.

[3] GOETHE (*Nachlese zu Arist. Poëtik*, 1826; *Briefwechsel mit Zelter*, iv. 288, v. 330, 354) explained the words *δι' ἐλέου καὶ φόβου περαίνουσα τὴν τῶν τοιούτων παθημάτων κάθαρσιν* in the definition of tragedy, *Poet.* 6, 1449, b, 24 sqq. as referring to the tranquillising effect upon the actors themselves. This explanation, however, is now universally acknowledged to be inadmissible (*e.g.* by MÜLLER, *ibid.* 380 sqq.; BERNAYS, *ibid.* 137; SPENGEL, *ibid.* 6). Apart from the linguistic difficulty, *Pol.* viii. 7, 1342, places beyond a doubt that the *κάθαρσις* is effected in the audience, and the same may be proved, as MÜLLER well shows, from the *Poetics*; for it could be said that tragedy, through fear and pity, effects a purification of these emotions in the actors only on condition that they came upon the stage in a condition of fear or pity, which (as LESSING, *Hamb. Dramat.* 78 *St.* has remarked) is by no means usually, and in the circumstances cannot possibly often be, the case. Aristotle, however, has expressed himself on this point as clearly as possible, c. 14 *init.* *Δεῖ γὰρ* [he says in treating of the production of the *φοβερὸν* and *ἐλεεινὸν*] *καὶ ἄνευ τοῦ δρᾶν οὕτω συνεστάναι τὸν μῦθον ὥστε τὸν ἀκούοντα τὰ πράγματα γινόμενα καὶ φρίττειν καὶ ἐλεεῖν ἐκ τῶν συμβαινόντων.*

[4] Thus LESSING, with all previous writers, *Hamb. Dram.* 74-78 *St.* (*Werke*, vii. 352 sqq. *Lachm.*): 'this purification depends on

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nothing else than the transformation of the passions into promptitudes to virtue' (p. 352). He has been followed by many others, *e.g.* SPENGEL in the treatise referred to, p. 307, n. 2, *supra*.

[1] *Pol.* viii. 7, 1341, b, 36, see *supra* c. 6, 1341, a, 21. *ἔτι δ' οὐκ ἔστιν ὁ αὐλὸς ἠθικὸν ἀλλὰ μᾶλλον ὀργιαστικόν, ὥστε πρὸς τοὺς τοιούτους αὐτῷ καιροὺς χρηστέον ἐν οἷς ἡ θεωρία κάθαρσιν μᾶλλον δύναται ἢ μάθησιν.*

[2] See preceding n. and c. 7. 1341, b, 32: since we must distinguish a moral, a practical and an exciting and inspiring kind of music, and since further music has to serve the different ends stated at p. 307, n. 2,—therefore *φανερὸν ὅτι χρηστέον μὲν πάσαις ταῖς ἁρμονίαις, οὐ τὸν αὐτὸν δὲ τρόπον πάσαις χρηστέον, ἀλλὰ πρὸς μὲν τὴν παιδείαν ταῖς ἠθικωτάταις πρὸς δὲ ἀκρόασιν ἑτέρων χειρουργούντων καὶ ταῖς πρακτικαῖς καὶ ταῖς ἐνθουσιαστικαῖς. ὃ γὰρ περὶ ἐνίας συμβαίνει πάθος ψυχὰς ἰσχυρῶς, τοῦτο ἐν πάσαις ὑπάρχει, τῷ δὲ ἧττον διαφέρει καὶ τῷ μᾶλλον* [there does not seem to be any reason to doubt these words with REINKENS, p. 156], *οἷον ἔλεος καὶ φόβος, ἔτι δ' ἐνθουσιασμός. καὶ γὰρ ὑπὸ ταύτης τῆς κινήσεως κατακώχιμοί τινές εἰσιν· ἐκ δὲ τῶν ἱερῶν μελῶν ὁρῶμεν τούτους, ὅταν χρήσωνται τοῖς ἐξοργιάζουσι τὴν ψυχὴν μέλεσι, καθισταμένους ὥσπερ ἰατρείας τυχόντας καὶ καθάρσεως. ταὐτὸ δὴ τοῦτο ἀναγκαῖον πάσχειν καὶ τοὺς ἐλεήμονας καὶ τοὺς φοβητικοὺς καὶ τοὺς ὅλως παθητικοὺς* [the MSS. reading for which Spengel unnecessarily suggests *ὅλως τοὺς παθ.*], *τοὺς δ' ἄλλους καθ' ὅσον ἐπιβάλλει τῶν τοιούτων ἑκάστῳ, καὶ πᾶσι γίγνεσθαί τινα κάθαρσιν καὶ κουφίζεσθαι μεθ' ἡδονῆς. ὁμοίως δὲ καὶ τὰ μέλη τὰ καθαρτικὰ παρέχει χαρὰν ἀβλαβῆ τοῖς ἀνθρώποις.* (This is a further effect of purifying music, different from the *κάθαρσις* itself: it purifies the *παθητικοὶ* and affords enjoyment to all; the lacuna therefore which THUROT, *Etudes*, 102 sq. surmises before *ὁμοίως δὲ* cannot be admitted.) From this passage, (however we may interpret its general meaning) this at any rate seems obvious, that according to Aristotle there is a kind of music which produces a catharsis, although it possesses no ethical character, and may not, therefore, be used in the education of the youth, nor practised by the citizens, although it may be listened to by them—namely, exciting music; but if this is so, the catharsis, while not without an indirect moral influence, yet cannot in itself, as regarded from the point of view

mental alleviation accompanied by pleasure,[1] and accordingly looks for it not in any improvement of the will or in the production of virtuous inclinations,[2] but in the equalisation of disturbances produced by violent emotions and the restoration of equanimity.[3] It is here of less importance, in point of actual fact, whether it is the religious or the medical meaning of 'purification' that is prominent in Aristotle's mind;[4] since in either case alike we are dealing with a figurative expression, in the sense that the term does not admit of being transferred literally from the one sphere to the other,[5] and we can only decide

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of its immediate effect, consist in the production of a definite character of will. That this is true also of the purification effected by tragedy admits of less doubt owing to the fact that precisely those emotions with which it has to deal (see *infra*) are here expressly connected with excitement, *i.e.* pity and fear.

[1] See preceding n. Similarly in *Poet.* c. 14, 1453, b, 10 the aim of tragic representation, which according to c. 6 consists in catharsis, is placed in a pleasure: *οὐ γὰρ πᾶσαν δεῖ ζητεῖν ἡδονὴν ἀπὸ τραγῳδίας, ἀλλὰ τὴν οἰκείαν. ἐπεὶ δὲ τὴν ἀπὸ ἐλέου καὶ φόβου διὰ μιμήσεως δεῖ ἡδονὴν παρασκευάζειν τὸν ποιητήν*, &c.

[2] Viz. *χαίρειν ὀρθῶς καὶ λυπεῖσθαι*, *Pol.* viii. 5, 1340, a, 15, 22; see p. 266, *supra.*

[3] This is the sense in which many writers in antiquity took purification, *e.g.* ARISTOXENUS (*Ph. d. Gr.* i. p. 714), Ps. JAMBL. *Myster. Aegypt.* p. 22, PROKL. in *Plat. Remp.* (*Plat. Opp.* Basil. 1534) p. 360, 362, PLUT. *Sept. Sap. Conv.* c. 13, p. 156 C. *Quæst. conviv.* III. 8, 2, 11, p. 657 A; cf. BERNAYS, *Grundzüge der Verlorenen Abhandlung d. Arist. über Wirkung der Tragödie* (*Abh. der Hist.-philos. Gesellschaft in Breslau 1.* 1858), p. 155 sqq. 199.; id. *Ueber die trag. Katharsis bei Arist.* (*Rhein. Mus.* xiv. 374 sq.)

[4] After Böckh had indicated, in 1830 (*Ges. kl. Schriften*, i. 180), this reference in *κάθαρσις* to medical purgation it was taken up first by A. WEIL (*Ueb. d. Wirkung der Trag. nach Arist. Verhandl. der* 10. *Vers. deutscher Philologen*, Bâle, 1848, p. 136 sqq.), more fully and independently of his predecessors by Bernays in the treatises mentioned in preceding note which go deeply into this question. These were followed by THUROT, *Etudes*, 104, and many others; cf. DÖRING, *ibid.* 278 sqq. who likewise resolutely defends this view, *ibid.* p. 248 sqq.

[5] On the other hand it cannot be supposed that Aristotle uses the word *κάθαρσις*, which he had coined to express a definite effect

how far he means to extend the analogy contained in it by a reference to other passages and to the whole scope of his doctrine. It seems probable that he took *κάθαρσις*, as we might use 'purgation,' in the first instance to mean the expulsion from the body of burdensome or injurious matter,[1] but that inasmuch as he was here dealing with the application of this conception to states of the emotions, he came to connect with it, as he went on, the idea of deliverance from pollution and spiritual disease as well [2]—just as in general one readily combines notions connected with the same expression in a confused compound without clearly discriminating them from one

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of artistic representation, in the *Politics* of music in a different sense from that in which in the *Poetics* he employs it of tragedy, nor does *Pol.* viii. 7, 1341, b, 38 give the remotest justification to the presumption that the tragic catharsis is specifically different from the musical. The one may be produced by different means from the other, but the effect indicated by *κάθαρσις* must itself in both cases be essentially the same, unless we are to attribute to Aristotle a confusion of terms which is wholly misleading. STAHR, *Arist. und die Wirk. d. Trag.* p. 13 sq. 21 sq., does not sufficiently distinguish between these two.

[1] Aristotle's own expressions, *Polit.* viii. 7, 1342, a, 10, 14: *ὥσπερ ἰατρείας τυχόντας καὶ καθάρσεως . . . πᾶσι γίγνεσθαί τινα κάθαρσιν καὶ κουφίζεσθαι μεθ' ἡδονῆς*, the remark in Ps. JAMBL. *De Myst.* i. 11 that the emotions (*δυνάμεις τῶν παθημάτων*) *ἀποπληροῦνται καὶ ἐντεῦθεν ἀποκαθαιρόμεναι . . . ἀποπαύονται*, and in PROCL. *in Remp.* 362 that Aristotle objects to Plato that he was wrong in forbidding tragedy and comedy, *εἴπερ διὰ τούτων δυνατὸν ἐμμέτρως ἀποπιμπλάναι τὰ πάθη καὶ ἀποπλήσαντας ἐνεργὰ πρὸς τὴν παιδείαν ἔχειν, τὸ πεπονηκὸς αὐτῶν θεραπεύσαντας* all point to this.

[2] According to *Polit.* viii. 6, 1341, a, 21, orgiastic music is in place *ἐν οἷς ἡ θεωρία* [the representation] *κάθαρσιν μᾶλλον δύναται ἢ μάθησιν*, and c. 7, 1342, a, 9 *ἰατρεία* and *κάθαρσις* are attributed to *ἐξοργιάζοντα τὴν ψυχὴν μέλη*. A definite kind of religious music is therefore compared in its effect with medical purgation. Aristotle seems also to have employed the word *ἀφοσίωσις*, which refers to the cancelling of transgressions by offerings and other religious acts, to express the same effect. PROCL. *ibid.* p. 360 represents him as asking Plato why he rejected tragedy and comedy, *καὶ ταῦτα συντελούσας πρὸς ἀφοσίωσιν τῶν παθῶν*, and replying himself, p. 362, that it is not true that they serve as an *ἀφοσίωσις*.

another. This very notion of purgation, moreover, was one in which the ancients were unable to keep the ideas of healing and expiation distinct from one another.[1] All the more, however, are we bound to investigate the question as to the internal processes which according to Aristotle are the means and condition of the purification effected by art. So much we learn from his own utterances, that the purification consists in deliverance from some dominating excitement of passion or overwhelming mental depression;[2] and accordingly we must understand by the expression in the first instance not[3] any purification within the soul of permanent affections, but the removal from it of unhealthy ones.[4] When we ask

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[1] Whoever is possessed of enthusiasm or any other violent and enslaving emotion which presses on him as a burden is *κατακώχιμος*, as Aristotle expresses it, *Pol.* viii. 7, 1342, a, 8. *κατακωχὴ* or *κατοκωχὴ*, however, is originally conceived of as *θεία κατοκωχὴ*, from which deliverance is to be obtained by reconciliation with God, the malady is a divine visitation, the cure is the result of propitiation (cf. PLATO, *Phædr.* 244 D sq.).

[2] In the words quoted, p. 311, n. 2, *supra*, from *Polit.* viii. 7, enthusiasm is spoken of as a form of excitement by which many persons are possessed (*κατακώχιμοι*), and of which, by means of orgiastic music, they are 'as it were cured and purified,' and the word *κουφίζεσθαι* is used to express the same effect.

[3] As Zeller formerly thought.

[4] The words *κάθαρσις τῶν παθημάτων* might themselves mean either a purification of the emotions or deliverance from them, for we may say either *καθαίρειν τινὰ τινὸς*, to purify one of something, or *καθαίρειν τὶ*, to purge away a defiling element. Medical language adopted this use of the word *κάθαρσις* from the time of Hippocrates (see REINKENS, p. 151 sq. who follows Foesius). It was transferred to the moral sphere, *e.g.* by Plato, in the *Phædo* 69 B, when he says that virtue is *κάθαρσίς τις τῶν τοιούτων πάντων* a deliverance from pleasure, fear, &c. Aristotle himself uses *κάθαρσις* in the sense of a 'purifying secretion,' *e.g.* *Gen. An.* iv. 5, 774, a, 1, where he speaks of a *κάθαρσις καταμηνίων*, *ibid.* ii. 4, 738, a, 28 of a *κάθαρσις τῶν περιττωμάτων* (for which, l. 27, *ἀπόκρισις* is used). These examples, combined with the passage referred to, n. 2 above, make it probable that *κάθαρσις τῶν παθημάτων* means a deliver-

How does Art effect this removal? we are told by some that it produces this result by engaging and satisfying in harmless excitements man's innate need of at times experiencing more violent emotions.[1] The peculiar character of the effect produced by art is not, however, to be thus easily explained. How is it that the cure is effected in this case by homœopathic and not as in other cases by allopathic treatment?[2] And why has the

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ance from παθήματα. This view seems indeed inconsistent with the terms of the well-known definition of Tragedy (see p. 320, n. 4, *infra*) in which it is said that it effects by pity and fear τὴν τῶν τοιούτων παθημάτων κάθαρσιν; for it seems as though the emotions of pity and fear could not possibly be banished by exciting them. In answer to this, however, it has already been pointed out by others (as by Reinkens, p. 161) that the artificially excited emotions of tragic pity and fear serve to release us from the emotions (already, according to p. 311, n. 2, *supra*, existing in each in weaker or stronger form) of a pity and fear which are called forth by common facts, and that this is the reason why Aristotle writes τῶν τοιούτων παθημάτων instead of τούτων, the two kinds of pity and fear referred to being related to one another, but not identical. (On the other hand, the fact that he writes παθημάτων instead of παθῶν is unimportant, both words, as Bonitz, *Arist. Stud.* 5, II, has shown in opposition to Bernays, being used by Aristotle as perfectly synonymous.)

[1] Thus Weil, *ibid.* 139; but even Bernays falls short here when he says that the catharsis effected by art is a discharge of solicited emotions: as purgative means produce health in the body by the expulsion of unwholesome matter, so purifying music produces a soothing effect by providing an outlet for the ecstatic element in us, &c. Cf. 171, 176, 164 and other passages in his treatise of 1858. Similarly his successors, *e.g.* Döring, who declares, p. 259, that κάθαρσις is 'an excretion of diseased matter by an increased production of it, or rather an acceleration of Nature's own healing process, which is already tending towards both these results;' and Ueberweg, *Zeitschr. f. Phil. L.* 33 sqq. who says it is 'a temporary deliverance from certain feelings (which, according to Ueberweg, spring from a normal want) by the excitement and indulgence of them;' but he overlooks the fact that πάθημα does not mean every possible or even normal feeling (still less 'normal wants,' p. 33, and *Grundr.* i. 213; see Eng. Tr. *Hist. of Phil.* vol. i. p. 179), but only morbid or oppressive moods, and that it is only from such that we require to be 'purged.'

[2] *Eth.* ii. 2, 1104, b, 17 of punishments: ἰατρεῖαι γάρ τινές

artistic excitement and not any other excitement of the emotions the effect of producing peace and purification by the expulsion of the morbid matter, whereas the frequent recurrence of certain emotions in real life has rather the effect of producing an inclination to repeat them?[1] Aristotle did not overlook this circumstance; but if he observed it we may be quite sure that he also attempted to explain it. And this, as a matter of fact, he has done. The 'catharsis' is indeed effected in his view by exciting the emotions and is a homœopathic cure of them;[2] but this effect is not to be expected from all excitements indifferently, but only from such as are artistic—and by artistic Aristotle here means, as we clearly gather from his account of tragedy, not that which produces the most violent emotion in us, but that which produces emotion in the right way. Had the artificial catharsis depended in Aristotle's view merely upon the excitation of certain emotions and not also essentially upon the manner and means of exciting them, he must have sought for the criterion of a work of art, not in its contents and their proper treatment, but singly and solely in its effect upon the spectators. This he is far from doing.[3] We are forced, therefore,

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εἰσιν, αἱ δὲ ἰατρεῖαι διὰ τῶν ἐναντίων πεφύκασι γίνεσθαι.

[1] Cf. *Eth.* ii. 1, 1103, b, 17 sqq.

[2] Tragedy by pity and fear effects the purification of these emotions (*Poet.* 6): sacred music by producing in us a state of mental excitement effects the cure and purgation of excitement (*Polit.* viii. 7, 1342, a, 4 sqq., cf. c. 5, 1340, a, 8 sqq. See p. 311, n. 2, *supra*).

[3] To mention only one thing, Aristotle cannot reiterate too often that both the action and the characters in a tragedy must evolve according to the laws of necessity and probability (*Poet.* 7, 1450, b, 32. *Ibid.* and c. 9, see p. 305, n. 4, *supra*, c. 10, 1452, a, 18, c. 15, 1454, a, 33 sqq.), and he blames the poets for abandoning the development which is demanded by the nature of the facts out of regard for the taste

to look for the reason why, according to Aristotle, the excitement of the emotions produced by Art has a soothing effect, whereas their excitement in real life is followed by no such result, in the peculiar nature of artistic representation itself—in other words, in that which constitutes the generic difference between art and reality. The latter presents us only with the particular, the former with the universal in the particular; in the latter chance largely rules, the former must reveal to us in its creations the fixity of law.[1] Aristotle certainly nowhere expressly says that this is the reason why art exercises a purifying influence; but if we would supplement the mutilated fragments of his theory of art which have come down to us in the spirit of the rest of his system we can hardly resist this conclusion. Art, we should then have to say, purifies and soothes the emotions in that it delivers us from such as are morbid or oppressive by exciting such as are subordinate to its law, directing them, not towards what is merely personal, but towards what is universal in man, controlling their course upon a fixed principle and setting a definite limit to their force.[2] Thus, for example, tragedy in the fate of its heroes gives us a glimpse into the universal lot of man and at the same time into an eternal law of justice;[3] music calms mental excitement and holds it

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of the public (c. 9, 1451, b, 33 sqq.; cf. c. 13, 1453, a, 30 sqq.).

[1] See p. 304 sq. *supra*.

[2] We have at least a hint of this thought in the statement from Proclus, cited p. 313, n. 1, to the effect that tragedy and comedy serve as a cure of morbid states of feeling by rendering it possible ἐμμέτρως ἀποπιμπλάναι τὰ πάθη.

[3] According to *Poet*. c. 13. those who pass in it from fortune to misfortune must be neither the wholly innocent nor the wholly bad: they should be characters distinguished neither by merit nor wickedness, but standing

spellbound by its rhythm and harmony.[1] Although we do not know how Aristotle further developed this thought, still we are forced to assume that he expressed it somehow.[2]

If we now turn from these general views upon Art to the special arts, Aristotle himself provides us with different principles according to which they might have been classified. All art is imitation, but the means, the objects, and the manner of this imitation are different. The means of imitation are sometimes colour and form,

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rather above than below the common standard of morality (*ἢ οἷον εἴρηται, ἢ βελτίονος μᾶλλον ἢ χείρονος*), *μὴ διὰ μοχθηρίαν ἀλλὰ δι' ἁμαρτίαν μεγάλην*. The tragedy must therefore be so constructed that we can put ourselves in the place of the hero, that we can say what happens to him might happen to each of us, while at the same time we feel that the fate which overtakes him is not wholly undeserved, but is brought on him by his own action, so revealing the laws of the moral order of the world. KOCK, *Ueb. d. Arist. Begr. d. Catharsis*, 1851, p. 11, strangely misunderstands the sense of this passage in holding that the purification of pity depends upon the thought that we do not need to pity the sufferer so immoderately, as he does not suffer wholly undeservedly; the purification of fear, on the conviction that we can avoid the misfortunes which overtake the hero if we avoid the mistake which has brought them in its train. If the effect of tragedy had consisted for Aristotle in this trite moral application he would have recommended above all those pieces which he so decidedly rejects (*ibid.* 1453, a, 1, 30)—those, namely, in which great transgressions are punished and virtue is rewarded, for in these the spectator has the tranquillising sense that he can avoid the penalty of transgression and reap the reward of virtue in a much higher degree. Aristotle is aware of the satisfaction which these moral reflections give, but says (*ibid.*) that they belong to the sphere, not of tragedy, but of comedy.

[1] STAHR (*Arist. und die Wirk. d. Trag.* 19 sqq.) curiously enough expresses himself as satisfied with Bernays' explanation on this head, and in this way involves himself in the difficulty of having to explain the catharsis, which Aristotle describes in like terms in connection with different arts, quite differently in one case and in the other. Cf. p. 312, n. 5.

[2] In this view Zeller is at one with BRANDIS, ii. b, 1710 sqq. iii. 163 sqq. and SUSEMIHL (*Arist. π. ποιητ.* 43 sqq.).

sometimes the voice, sometimes words, harmony, and rhythm; these means, moreover, are sometimes employed singly, at other times several of them are combined.[1] The chief objects of imitation are living and acting persons;[2] and these differ from one another in moral worth.[3] The manner (here, however, Aristotle is speaking of poetry only) differs according as the imitator himself speaks or brings forward other speakers; and in the former case according as he speaks *in propria persona*, or merely reports the words of others.[4] Aristotle, however, has not attempted to use these differences as the basis of any systematic division of the Arts as a whole. Upon the particular arts, moreover, with the exception of the art of poetry, very little has come down to us in his works: we have only a few occasional observations upon painting,[5] and a fuller discussion of music,[6] the chief contents of which have already been given.[1] Finally, the extant portion of Aristotle's writings which deals with poetry limits itself almost entirely to tragedy. The art of poetry, we are told, sprang from the imitative instinct;[2] from the imitation of noble men and actions came epic poetry; from the imitation of ignoble, satire; subsequently as the form best adapted for the nobler poetry, tragedy was developed; as the best for satire, comedy.[3] Tragedy is the imitation of an important completed action, of a certain length, expressed in graceful style, which varies in the several parts of the piece, to be acted, not merely narrated, and effecting by means of pity and fear the purification of these emotions.[4] The first effect, therefore, of tragic poetry is to excite our sympathy by means of the fate of the actors: their sufferings claim our pity; the dangers with which they are threatened excite in us fear for the final issue—that tragic suspense which in the further development finds relief[5] at one time in an unfortunate, at another in a fortunate, turn of events.[1] But since the tragic poet sets before us in his heroes and in their fate universal types of human nature and life, our sympathies do not confine themselves to these particular characters, but extend to the common elements of human nature; and while thus on the one hand self-regarding humours akin to pity and fear are created in us by our participation in the experiences of the actors, on the other our own pain gives way before the feeling of others' pain, our personal woes are silenced at the spectacle of universal destiny, we are delivered from the oppressions that weigh on us, and our emotions find peace in the recognition of those eternal laws which the course of the piece reveals to us.[2] This

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[1] *Poet.* i. 1447, a, 16 sqq.

[2] μιμοῦνται οἱ μιμούμενοι πράττοντας, c. 2, 1448, a, 1. This statement suffers only slight modification from the passages quoted p. 304, n. 1 and 2, *sup.*, on the representation of particular natural objects. Aristotle would not therefore have recognised landscape painting, which in his time did not yet constitute an independent branch of art, as art at all.

[3] C. 2, see p. 305, n. 3, *supra*.

[4] *Poet.* c. 3 *init.* Aristotle here distinguishes, as Susemihl rightly observes, (*a*) μιμεῖσθαι ἀπαγγέλλοντα, (*b*) μιμεῖσθαι πάντας τοὺς μιμουμένους ὡς πράττοντας καὶ ἐνεργοῦντας. Drama is constituted by the latter; in (*a*) it is possible to imitate (1) ἢ ἕτερόν τι [τινα] γιγνόμενον (by assuming the part of another), (2) ἢ ὡς τὸν αὐτὸν καὶ μὴ μεταβάλλοντα. Under this second category, along with personal narration would fall also lyric poetry, although Aristotle nowhere expressly refers to it in the *Poetics* as we have received them. While very closely connected with Plato's division of the forms of artistic presentation, Aristotle's does not wholly coincide with it.

[5] *Poet.* 2, 15, see 305, n. 1 and 3, *supra*. *Pol.* viii. 5, *v.* vol. ii. p. 308, n. 2, *supra*; also *Pol.* viii. 3, *v.* vol. ii. p. 264, n. 3, *supra*.

[6] *Pol.* viii. 3, 1337, b, 27, c. 5–7.

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[1] *Sup.* vol. ii. p. 266 sqq. cf. p. 311, n. 1 & 2. While Aristotle here attributes to music especially (as is there shown) the power of representing moral qualities, yet he does not explain in the *Politics* the grounds of this advantage which it possesses over the other arts. In *Probl.* xix. 27, cf. c. 29 it is asked: *διὰ τί τὸ ἀκουστὸν μόνον ἦθος ἔχει τῶν αἰσθητῶν;* and the answer is given: because we perceive movements through the hearing alone, and the *ἦθος* expresses itself in actions, and therefore in movements. But this passage can hardly be Aristotle's.

[2] See p. 303, *supra*.

[3] C. 4, 5.

[4] C. 6, 1449, b, 24: *ἔστιν οὖν τραγῳδία μίμησις πράξεως σπουδαίας καὶ τελείας, μέγεθος ἐχούσης, ἡδυσμένῳ λόγῳ, χωρὶς ἑκάστου τῶν εἰδῶν ἐν τοῖς μορίοις* [*i.e.* as is immediately afterwards explained, so that the different kinds of *ἡδυσμένος λόγος*—*λέξις* and *μέλος*—are employed in the dialogue and chorus of the tragedy respectively; cf. c. 1 *fin.*] *δρώντων καὶ οὐ δι' ἀπαγγελίας, δι' ἐλέου καὶ φόβου περαίνουσα τὴν τῶν τοιούτων* [on which see *supra*, p. 314, n. 4, *ad fin.*] *παθημάτων κάθαρσιν.*

[5] Since the time of LESSING (*Hamb. Dramat.* 75 *St.*) whom Zeller followed in the previous edition, the 'fear' in Aristotle's

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definition has been commonly understood of fear for ourselves excited by the thought that those whom we see suffering are like ourselves, and the fate which overtakes them might overtake us. This view rests partly on the observation that fear for the heroes of tragedy is already involved in pity, and that there is, therefore, no reason to make particular mention of it; partly on *Rhet.* ii. 5 *init.* ii. 8 *init.*, where φόβος is defined as λύπη ἐκ φαντασίας μέλλοντος κακοῦ φθαρτικοῦ ἢ λυπηροῦ, ἔλεος as λύπη τις ἐπὶ φαινομένῳ κακῷ φθαρτικῷ καὶ λυπηρῷ τοῦ ἀναξιοῦ τυγχάνειν. But it is not asserted that the fear refers only to such evils as threaten ourselves—any such assertion, indeed, would be wholly false; and, on the other hand, it holds also, as the distinction between fear for others and pity for them, that the former is excited by evils which are still future to them, the latter by those which have already befallen them. On the contrary, it is rightly objected to Lessing's explanation (SUSEMIHL, *Poet.* 57 sqq., and the authorities quoted by him), that according to Aristotle's own indubitable statement the primary object of tragic fear is not ourselves but others; for he says, *Poet.* 13, 1453, a, 4, of ἔλεος and φόβος: ὁ μὲν γὰρ περὶ τὸν ἀνάξιόν ἐστιν δυστυχοῦντα, ὁ δὲ περὶ τὸν ὅμοιον, ἔλεος μὲν περὶ τὸν ἀνάξιον, φόβος δὲ περὶ τὸν ὅμοιον. To this explanation there is the further practical objection that fear for ourselves produced by the spectacle of a tragedy would hardly be the proper means of delivering us from this same selfish fear.

[1] The latter, however, as is remarked c. 13, 1453, a, 12 sqq. 35 sqq., less to the character of tragedy than to that of comedy.

[2] See *supra*, vol. ii. p. 316 sq.

impression depends in the first place upon the nature of the events represented. These, therefore, are the important thing in every tragic representation. 'Myth,' as Aristotle says, is the soul of tragedy,[1] and accordingly he sets himself to investigate, in the first place, the qualities which are necessary in a tragedy that it may effect its end : viz. natural development,[2] proper length,[3]

To distinguish from this purifying effect of tragedy the moral effect as a second and different result (as UEBERWEG, *Zeitschr. f. Philos.* xxxvi. 284 sqq. does) seems to be incorrect. Although Aristotle, in treating of music, places παιδεία, διαγωγὴ, κάθαρσις side by side as co-ordinate aims (see p. 307, n. 2, *supra*) it does not follow that tragedy also has to pursue all these aims in like manner. On the contrary, as there is both a moral and a cathartic kind of music (*i.e.* one which directly affects the will, and one which primarily affects only the emotions and, through them, moral character), there may also be a kind of poetry whose primary aim is catharsis. We must assume that tragedy, according to Aristotle, is actually such a cathartic species of poetry, inasmuch as in his definition of it he must have given its aim in an essentially complete form if he gave it at all. It is quite compatible with this to attribute to tragedy a moral effect, but it is added as a second, which is coordinate with the cathartic, but follows from it as result, and consists in the peaceful state of feeling which is produced by the purification of the emotions and the habit of self-control which it creates in us.

[1] *Poet.* c. 6, where, *inter alia*, 1450, a, 15 (after the enumeration of the six elements in tragedy, μῦθος, ἤθη, λέξις, διάνοια, ὄψις, μελοποιΐα): μέγιστον δὲ τούτων ἐστὶν ἡ τῶν πραγμάτων σύστασις· ἡ γὰρ τραγῳδία μίμησίς ἐστιν οὐκ ἀνθρώπων ἀλλὰ πράξεως καὶ βίου καὶ εὐδαιμονίας καὶ κακοδαιμονίας . . . οὔκουν ὅπως τὰ ἤθη μιμήσωνται πράττουσιν, ἀλλὰ τὰ ἤθη συμπεριλαμβάνουσι διὰ τὰς πράξεις. ὥστε τὰ πράγματα καὶ ὁ μῦθος τέλος τῆς τραγῳδίας. L. 38: ἀρχὴ μὲν οὖν καὶ οἷον ψυχὴ ὁ μῦθος τῆς τραγῳδίας, δεύτερον δὲ τὰ ἤθη. Cf. c. 9, 1451, b, 27: τὸν ποιητὴν μᾶλλον τῶν μύθων εἶναι δεῖ ποιητὴν ἢ τῶν μέτρων. On the other hand, the effect produced by the mere spectacle (ὄψις) is declared to be that which has the least artistic value; *ibid.* 1450, b, 16.

[2] C. 7, see *supra*, vol. ii. p. 316, n. 3.

[3] This question is decided, *ibid.* 1450, b, 34 sqq., in like fashion to that in the *Politics* (see p. 259, n. 1, *supra*) as to the size of the State. The longer and richer presentation is in itself the more beautiful, provided that the plot does not suffer in clearness (τὸ εὐσύνοπτον) owing to its length; the true criterion here is: ἐν ὅσῳ μεγέθει κατὰ τὸ εἰκὸς ἢ τὸ ἀναγκαῖον ἐφεξῆς γιγνομένων συμβαίνει εἰς εὐτυχίαν ἐκ δυστυχίας

unity of treatment,[1] and the representation of events that are typical and of universal interest.[2] He distinguishes simple events from complicated ones, and those in which the change in the position of the characters is brought about by some recognition or by some reversal of fortune in the course of the piece.[3] Again he shows how myths must be treated in order to excite the emotions of pity and fear instead of those of moral indignation or satisfaction[4] or of mere wonder, and in order to produce this effect by means of these emotions themselves and not merely by means of the outward representation.[5] He further discusses what is required for proper character-painting[6] and composition,[7] passing finally to speak of the style of expression best adapted to tragedy.[8] We cannot, however, here linger over

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ἢ ἐξ εὐτυχίας εἰς δυστυχίαν μεταβάλλειν.

[1] Of the so-called three Aristotelian unities of the French school, only the 'unity of action' is to be found, as is well known, in Aristotle himself; see *Poet.* c. 8; cf. c. 9, 1451, b, 33 sqq. c. 18, 1456, b, 10 sqq. The 'unity of place' he nowhere mentions, and on that of time he only remarks (c. 5, 1449, b, 12) that tragedy endeavours to compress the action into one day, or, at any rate, to keep as nearly as possible within this limit, but he gives no rule.

[2] C. 9; see *sup.* ii. 305, n. 4.

[3] C. 10, 11, 16, where *ἀναγνώρισις* and *περιπέτεια* are discussed. On the genuineness and position of c. 16, cf. SUSEMIHL, at p. 12 sq. of his ed.

[4] In this sense, viz. of the satisfaction of that moral feeling with the violation of which Nemesis (see *sup.* vol. ii. p. 169, n. 9) has to do, we may interpret *τὸ φιλάνθρωπον* which, according to Aristotle (c. 13, 1453, a, 3, c. 18, 1456, a, 21), attaches to the deserved misfortune of the transgressor. It is commonly taken (as it was by Lessing) to refer to the human interest with which we accompany even the transgressor in such a case; but Aristotle appears, especially c. 18, to find *τὸ φιλάνθρωπον* precisely in the punishment of wrong as such: one who wishes well to humanity can wish no good to its enemies.

[5] C. 13, 14.

[6] C. 17 sq.

[7] C. 15, on the text and arrangement of which see SUSEMIHL, p. 10, 13 sq.

[8] *Λέξις* c. 19–22, with which cf. MÜLLER, *ibid.* 131 sqq.

these technical details. With regard to the section dealing with narrative poetry,[1] with which the *Poetics*, as we have it, closes, we need only remark that Aristotle here also lays the main emphasis upon the unity of the action, finding in it the mark which separates epic poetry from history, which is the narrative of contemporaneous events without reference to their inner connection.[2] It is chiefly, moreover, on the ground of its greater unity that in comparing tragedy with epic poetry he assigns to the former the higher place as a form of artistic composition.[3] Of the remaining kinds of poetry the extant portions of Aristotle's work do not treat. Comedy alone is briefly touched upon in an earlier passage[4]; and cursory as are his allusions[5] to it, we can yet see from them that Aristotle was not inclined to concur in Plato's harsh estimate of its value.[6]

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[1] C. 23–26.

[2] C. 23.

[3] C. 26.

[4] See *supra*, vol. ii. p. 304 sq.

[5] Supplementary to these (as was shown by BERNAYS) are some statements to be found in the editions of VAHLEN and SUSEMIHL, as was already remarked, vol. i. p. 102. Besides the quotations, *sup.* vol. i. p. 306, n. 3, p. 313, n. 1, the division of comedy into γέλως ἐκ τῆς λέξεως and γέλως ἐκ τῶν πραγμάτων is of especial interest in this connection. Cf. BERNAYS, *Rhein. Mus.* N. F. viii. 577 sqq.

[6] Plato had conceived in a general way of comedy only as the representation of deformity, and the pleasure produced by it as malignancy. Only in the *Laws* does he admit it as a means of moral education (see *Ph. d. Gr.* i. 800, 802). Aristotle admits that it has to do with human infirmity, but he adds that it deals only with harmless infirmities, and in demanding of it at the same time that it should devote itself not to the ridicule of particular persons but to depicting types of character, he opened the way to the recognition of it as a means of purifying and elevating natural sentiments. Whether Aristotle actually adopted this view, and whether he assigned to comedy a higher position than the music which, in *Polit.* viii. 7, 1342, a, 18 sqq., he withholds from the common people, cannot be positively decided.

CHAPTER XVI

RELIGIOUS ASPECT OF ARISTOTLE'S PHILOSOPHY

In the preceding section we had to deal with a fragmentary account of a theory which Aristotle himself developed more fully. In the section now before us we have to deal with a subject which he has made no attempt to treat scientifically, but has only touched upon occasionally in detached passages. Aristotle has not any more than Plato a philosophy of Religion in the scientific sense;[1] his system even lacks those features which give to the Platonic philosophy, in spite of the severe criticisms which it passes on the existing religion, a peculiar religious character of its own. He does not require to fall back upon the popular faith, as Plato had done in his theory of myths, although at the same time, on the principle that universal opinion and unreflecting tradition are never without a certain truth,[2] he willingly makes use of the suggestions and links of connection which it supplies.[3] His scientific researches do not exhibit that constant direct reference to the personal life and circumstances of men which in an especial degree gives to the Platonic philosophy its religious tone;[1] even in morals the motives which he assigns for action are strictly ethical and not religious. His whole view of the world rests upon the principle of explaining things as completely as may be by a reference to their natural causes; that the universe of natural effects must be referred to a Divine cause he never in the least doubts;[2] but as this affords no scientific explanation of them he never connects individual facts and events, as Plato so often does, with divine agency. The conception of Providence, common to Socrates and Plato, as of a divine activity exercised in individual cases, finds no place in Aristotle.[3] We miss, therefore, in his system that warm glow of religious feeling which in Plato has ever so strongly appealed to susceptible minds, and in comparison with which the Aristotelian philosophy seems to be cold and lifeless.

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[1] His view of the Divine Being, indeed, is set forth in the *Metaphysics*; but the question with which the philosophy of religion starts, as to the distinguishing characteristics of religion especially in its relation to philosophy, is nowhere fully investigated.

[2] See *supra*, vol. i. p. 256, n. 2, and p. 291, n. 5.

[3] For proofs of this, see *infra*.

It would be wrong to deny or under-estimate the difference which exists in this respect between the two philosophers. They certainly treat their subject in a different spirit. The inner bond which in Plato unites philosophy with religion is not indeed completely severed in Aristotle, but it is so widely expanded as to give to science the freest scope in its own field. No attempt is ever made to answer scientific questions by means of religious presuppositions. On the other hand, all positive treatment of religion itself, as a science in the same sense as art or morality, is as far from Aristotle's thoughts as from Plato's. Different as is the attitude which each actually takes up with regard to religion, yet in their scientific views of it they approach very near to one another, the main difference in this respect being that Aristotle is more strictly logical in drawing conclusions whose premises are no strangers to Plato's thought. Aristotle, as we have already seen, is convinced like Plato of the unity of the Divine Being (in so far as we understand by this Deity in the proper sense of the word, or the highest efficient cause), of his exaltation above the world, of his immaterial and purely spiritual nature, and of his faultless perfection; and he strives to demonstrate with greater fullness and more scientific accuracy than his predecessor not only the existence but also the attributes of Deity. But while Plato had on the one hand identified God with the Idea of the Good, which can only be conceived of as impersonal, on the other he depicted his creative and governing activity in conformity with popular representations of it, and not without sundry mythical embellishments. This ambiguity is removed by his pupil, who defines the Divine Nature clearly and sharply on both sides: on the one hand God, as a personal supernatural Being, is guarded from all confusion with any merely universal conception or impersonal power; while on the other, as he is limited in his activity to pure thought and absolutely self-contained, and he operates upon the world only to set in motion the outermost of the cosmic spheres.[1] Individual events do not therefore upon this view admit of being referred directly to divine causation. Zeus does not rain in order that the corn may grow or be destroyed, but because, according to universal laws of nature, the rising vapours cool and descend as water;[2] prophetic dreams are not sent by the gods to reveal to us the future, but, in so far as the question is here of causality at all and not merely of chance coincidence, they are to be referred as natural effects to physical causes[3] Nor is the case in any degree altered by the fact that between God above and earth beneath numerous other eternal beings find a place;[4] since the operation of those heavenly beings is likewise limited to causing the motion of their own sphere, any interference on their part with individual events of the kind that popular belief attributes to its gods and demons is out of the question. The essential truth of the belief in Providence, however, Aristotle does not certainly on this account resign. He also recognises in the order of the universe the operation of Divine Power and of rational design;[5] he believes especially that the gods care for men, that they interest themselves in those who live according to reason, and that happiness is their gift[6];

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[1] Cf. *Ph. d. Gr.* i. p. 793 sq.

[2] See vol. i. p. 421 sq.

[3] Cf. *supra*, vol. i. p. 399 sq.

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[1] See *supra*, vol. i. p. 388 sqq; cf. *Ph. d. Gr.* i. p. 785 sqq. 591 sqq.

[2] See *supra*, vol. i. p. 361, n. 1.

[3] See *supra*, vol. ii. p. 75 sq. *Div.* 1, 462, b, 20.

[4] See *supra*, vol. i. p. 494 sq.

[5] See vol. i. p. 420 sq.

[6] *Eth.* x. 9, 1179, a, 24: εἰ γάρ τις ἐπιμέλεια τῶν ἀνθρωπίνων ὑπὸ θεῶν γίνεται, ὥσπερ δοκεῖ, καὶ εἴη ἂν εὔλογον χαίρειν τε αὐτοὺς τῷ ἀρίστῳ καὶ τῷ συγγενεστάτῳ (τοῦτο δ' ἂν εἴη ὁ νοῦς) καὶ τοὺς ἀγαπῶντας μάλιστα τοῦτο καὶ τιμῶντας ἀντευποιεῖν ὡς τῶν φίλων αὐτοῖς ἐπιμελουμένους καὶ ὀρθῶς τε καὶ καλῶς πράττοντας. i. 10, 1099, b, 11: εἰ μὲν οὖν καὶ ἄλλο τι ἐστὶ θεῶν δώρημα ἀνθρώποις, εὔλογον καὶ τὴν εὐδαιμονίαν θεόσδοτον εἶναι καὶ

he also opposes the notion that God is envious, and might therefore, if he liked, withhold from man his best gift of knowledge.[1] But this Divine Providence coincides completely for Aristotle with the operation of natural causes;[2] all the more because in setting aside the Platonic eschatology he left no room for that direct agency of the Deity which Plato had so largely admitted into his pictures of the future life and its retributions. God stands according to Aristotle outside the world, engaged in solitary self-contemplation; he is for man the object of admiration and reverence;[3] the knowledge of him is the mind's highest aim;[4] in him lies the goal towards which, along with all finite things, man strives, and whose perfection excites his love.[5] But as man can expect no reciprocal love from God,[6]

μάλιστα τῶν ἀνθρωπίνων ὅσῳ βέλτιστον. viii. 14, 1162, a, 4: ἔστι δ' ἡ μὲν πρὸς γονεῖς φιλία τέκνοις, καὶ ἀνθρώποις πρὸς θεοὺς, ὡς πρὸς ἀγαθὸν καὶ ὑπερέχον· εὖ γὰρ πεποιήκασι τὰ μέγιστα.

[1] *Metaph.* i. 2, 982, b, 32 (see *sup.* vol. ii. 163, 3): εἰ δὴ λέγουσί ὅτι οἱ ποιηταὶ καὶ πέφυκε φθονεῖν τὸ θεῖον, ἐπὶ τούτου συμβαίνειν μάλιστα εἰκός . . . . ἀλλ' οὔτε τὸ θεῖον φθονερὸν ἐνδέχεται εἶναι, &c. Cf. *Ph. d. Gr.* i. 602, 1, 787, 1.

[2] *Eth.* i. 10: Aristotle continues: φαίνεται δὲ κἂν εἰ μὴ θεόπεμπτός ἐστιν ἀλλὰ δι' ἀρετὴν καί τινα μάθησιν ἢ ἄσκησιν παραγίνεται τῶν θειοτάτων εἶναι· τὸ γὰρ τῆς ἀρετῆς ἆθλον καὶ τέλος ἄριστον εἶναι φαίνεται καὶ θεῖόν τι καὶ μακάριον. If we compare with this the passage quoted from *Eth.* x. 10 on p. 156, n. 4, *supra*, we shall see that the happiness which is θεόσδοτος consists merely in the moral and spiritual capacities of man—in the natural possession of reason in which he has still to secure himself by actual study and practice.

[3] *Metaph.* xii. 7 (see *supra*, vol. i. p. 184, n. 1). SENECA, *Q. N.* vii.: *egregie Aristoteles ait, nunquam nos verecundiores esse debere quam cum de Dis agitur.*

[4] The Divine Being is the highest object of thought (see *supra*, vol. i. p. 398 n. 2), and theology therefore (vol. i. p. 184, n. 1), the highest branch of philosophy.

[5] Cf. vol. i. p. 404, sqq.

[6] See *supra*, vol. i. p. 398, n. 1, which places the passage quoted, p. 328, n. 6, *supra*, from *Eth.* viii. 14 in the proper light; there is a love (φιλία) of men towards the gods, but not *vice versa*.

neither can he experience any influence from him which would be different from that of natural causes, and his reason is the only means whereby he enters into direct communion with him.[1]

Holding these views, Aristotle could not concede to the popular religion the same significance which Plato did. That it must certainly have its own truth, followed for him from his view of the historical evolution of mankind and the value of common opinion. Universal conviction is for him of itself a mark of truth,[2] all the more so when we are dealing with convictions which have been transmitted by mankind from time immemorial. Since the world, according to Aristotle, is eternal, the earth must be so also; and if the earth is so, man must be so as well.[3] But all parts of the globe undergo continual change,[4] and one of the consequences of this is that man's development does not proceed in an unbroken line but is ever and anon interrupted by relapses into a state of primitive barbarism and ignorance,[5] from which a fresh start must be made in the cyclic process of creation.[6] In this way all knowledge and all art have been lost and rediscovered times without number, and similar notions have recurred to mankind, not once or twice but with incalculable frequency. Nevertheless, a certain recollection of particular truths has been retained amid the changes in man's condition, and it is these remnants of departed knowledge that, according to Aristotle, form the kernel of mythical tradition.[1] Even the popular faith, therefore, has its roots in the search for truth, whether we trace it back to that intuition of the divine which even Aristotle is unwilling to contradict,[2] and to those experiences which he regarded as the source of the popular theology,[3] or whether we trace it to a tradition which, as a remnant of an older science or religion, must yet in the end have its roots in human reason. More particularly there are two truths which Aristotle, like Plato, finds to be contained in the popular belief of his country: first, that God exists; and secondly, that the stellar universe is in its nature divine.[4] With the further details of Greek mythology, on the other hand, with all the doctrines and stories which transfer the properties and weaknesses of human nature to the gods—in a word, with the whole range of anthropomorphic theology—Aristotle is as completely out of sympathy as Plato was; the only difference is that he no longer considers it necessary, as Plato had done, expressly to confute such representations, but treats them simply as preposterous fables.[1] If we ask how those false elements have found their way into the popular faith, Aristotle refers us to the inherent tendency in mankind to anthropomorphic representations of the gods,[2] which offended even Xenophanes,[3] or to the fact that statesmen had accommodated themselves as a matter of policy to this tendency, and used it for their own ends. Even ancient tradition, he says,[4] recognises that the heavens and the heavenly bodies are gods, and that the whole world is encircled by divinity. 'All else, however, is mythical embellishment, devised to attract the multitude, to aid legislation, and to forward the common interest.' While therefore Plato had permitted the legislator to employ myths (the origin of which he did not explain) as pædagogic lies in the interest of the State,[1] Aristotle goes a step farther, and thus comes a step nearer the view of sophistic free-thinking as to the origin of religion,[2] in maintaining that these myths, or at least a great part of them, had been from the beginning invented for no other purpose. This, indeed, is what we should expect from the strictness with which he himself excludes all that is mythical from his scientific investigations, his refusal to introduce religious considerations into his naturalistic view of the world,[3] and the exclusiveness with which he relies in his *Ethics* upon moral motives to the neglect of the religious. Religion itself, indeed, he always treats as an absolute moral necessity. The man who doubts whether the gods have a claim on our reverence or not is a fit subject, he says,[4] not for instruction but for punishment, just as would be the man who might ask whether his parents have a claim upon his love. As in his system the world cannot be thought of apart from God, so neither can man apart from religion. But to rest this religion upon such palpable fables as the myths of the popular belief can be justified only on the ground of the aforesaid political expediency.[5] Aristotle himself sometimes makes use of these myths, as of other popular opinions, in order to point to some

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[1] Cf. on this point, *supra*, vol. i. p. 329, n. 2, and p. 403 sqq.

[2] See *supra*, vol. i. p. 291, n. 5.

[3] Cf. *supra*, vol. ii. p. 32, n. 1.

[4] See *supra*, vol. ii. p. 29 sq.

[5] Cf. *Polit.* ii. 8, 1269, a, 4: εἰκός τε τοὺς πρώτους, εἴτε γηγενεῖς ἦσαν εἴτ' ἐκ φθορᾶς τινος ἐσώθησαν, ὁμοίους εἶναι καὶ τοὺς τυχόντας καὶ τοὺς ἀνοήτους, ὥσπερ καὶ λέγεται κατὰ τῶν γηγενῶν, ὥστ' ἄτοπον τὸ μένειν ἐν τοῖς τούτων δόγμασιν.

[6] Cf. *Phys.* iv. 14, 223, b, 24: φασὶ γὰρ κύκλον εἶναι τὰ ἀνθρώπινα πράγματα.

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[1] *Metaph.* xii. 8; see p. 508, n. 2, *supra*. *De Cœlo* i. 3; *Meteor.* i. 3, 339, b, 19: it is not we alone who have this view of the πρῶτον στοιχεῖον as the substance of the celestial world, φαίνεται δ' ἀρχαία τις ὑπόληψις αὕτη καὶ τῶν πρότερον ἀνθρώπων . . . . οὐ γὰρ δὴ φήσομεν ἅπαξ οὐδὲ δὶς οὐδ' ὀλιγάκις τὰς αὐτὰς δόξας ἀνακυκλεῖν γινομένας ἐν τοῖς ἀνθρώποις, ἀλλ' ἀπειράκις. *Polit.* vii. 10, 1329, b, 25: σχεδὸν μὲν οὖν καὶ τὰ ἄλλα δεῖ νομίζειν εὑρῆσθαι πολλάκις ἐν τῷ πολλῷ χρόνῳ, μᾶλλον δ' ἀπειράκις, as like needs and states must always have led to the same discoveries.

[2] *De Cœlo*, ii. 1 *fin.*: Aristotle's view of the eternity of the world is not only truer in itself, ἀλλὰ καὶ τῇ μαντείᾳ τῇ περὶ τὸν θεὸν μόνως ἂν ἔχοιμεν οὕτως ὁμολογουμένως ἀποφαίνεσθαι συμφώνους λόγους. Cf. the appeal to πάτριοι λόγοι, *ibid.* 284, a, 2. *Metaph.* xii. 8, see *supra*, vol. i. p. 508, n. 2.

[3] See *supra*, vol. i. p. 390, n. 3.

[4] The first hardly requires proof; see, however, the quotations, vol. i. p. 390, n. 3, 4, from SEXTUS and CICERO, and p. 395, n. 6, from the treatise *De Cœlo*, i. 9; in the latter passage a trace of true knowledge is discovered in the name αἰὼν, just as elsewhere in that of the 'aether' (καὶ γὰρ τοῦτο τοὔνομα θείως ἔφθεγκται παρὰ τῶν ἀρχαίων). In support of his doctrine of the divinity of the heavens and of the stars, Aristotle appeals to the existing religion in the passage just referred to.

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[1] *Metaph.* xii. 8; see p. 508, n. 2, *supra*. *Ibid.* iii. 2, 997, b, 8; see vol. i. p. 315, n. 2, c. 4, 1000, a, 18: ἀλλὰ περὶ μὲν τῶν μυθικῶς σοφιζομένων οὐκ ἄξιον μετὰ σπουδῆς σκοπεῖν. *Poet.* 25, 1460, b, 35: a poetic representation is justified by its correspondence either with the ideal or with the actual; εἰ δὲ μηδετέρως, ὅτι οὕτω φασὶν, οἷον τὰ περὶ θεῶν. ἴσως γὰρ οὔτε βέλτιον οὕτω λέγειν, οὔτ᾽ ἀληθῆ, ἀλλ᾽ ἔτυχεν ὥσπερ Ξενοφάνης· ἀλλ᾽ οὔ φασι τάδε.

[2] *Polit.* i. 2, 1252, b, 24: καὶ τοὺς θεοὺς δὲ διὰ τοῦτο πάντες φασὶ βασιλεύεσθαι, ὅτι καὶ αὐτοὶ οἱ μὲν ἔτι καὶ νῦν οἱ δὲ τὸ ἀρχαῖον ἐβασιλεύοντο· ὥσπερ δὲ καὶ τὰ εἴδη ἑαυτοῖς ἀφομοιοῦσιν οἱ ἄνθρωποι, οὕτω καὶ τοὺς βίους τῶν θεῶν. This deduction of the belief in a sovereign of the gods is all the more remarkable, because Aristotle might equally well have himself found in that tradition a proof of the unity of God.

[3] Cf. *Ph. d. Gr.* i. 490.

[4] In the passage quoted from *Metaph.* xii. 8, in vol. i. p. 508, n. 2.

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[1] See *Ph. d. Gr.* i. 792.

[2] *Ibid.* i. 1010 sq.

[3] The expression is used in no depreciatory sense, but as indicating the view that everything in the world is the effect of natural causes.

[4] *Top.* i. 11, 105, a, 5, cf. *Eth.* viii. 16, 1163, b, 15, ix. 1, 1164, b, 4, and *supra*, vol. ii. p. 329, n. 3.

[5] It is possible, indeed, that if he had completed the discussion of education in the best state, he would have accepted Plato's doctrine, that myths were indispensable in education, as easily reconcileable with the argument.

universal truth embodied in them,[1] just as he likes to trace back scientific assumptions to their most insignificant beginnings, and to pay respect to popular sayings and proverbs.[2] But apart from the few universal principles of religion embodied in mythology, he ascribes to it no deeper significance; and just as little, on the other hand, does he seem to aim at its purification. He presupposes for his State the existing religion,[3] just as personally he did not renounce its rites, and expressed his dependence on friends and relatives through the forms which it had consecrated;[1] but of the Platonic demand for the reform of religion by philosophy we have not a trace in him, and in his *Politics* he admits into the existing cultus things which he disapproves of in themselves.[2] Aristotle's philosophy stands thus as a whole in the loosest relation to positive religion. It takes advantage of its ideas as links of literary connection, but makes no further use of them. Just as little, however, does it desire to see religion purified or reformed; on the contrary, it seems to accept its imperfections as something which could not possibly be otherwise. Each stands to the other in an attitude of essential indifference; philosophy goes its own way, without much troubling itself about religion, or fearing from it any interruption in the prosecution of its own work.

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[1] Thus *Metaph.* i. 3, 983, b, 27, c. 4 *init.* xiv. 4, 1091, b, 3. *Phys.* iv. 1, 208, b, 29, hints of certain scientific views of the world are discovered in the cosmogonic myths of Hesiod and other poets; *Meteor.* i. 9, 347, a, 5 the Oceanus is interpreted of the air-current that encircles the earth; the myth of Atlas proves that its inventors, with later philosophers, attributed weight to the heavens (*De Cœlo*, ii. 1, 284, a, 18, in the treatise *De Motu Anim.* 3, 699, a, 27, Atlas is interpreted to mean the world's axis; the same treatise, c. 4, 699, b, 35, finds in Homer's lines upon the golden chain a reference to the immobility of the *primum movens*); Aphrodite is said to have obtained this name because of the frothy character of the semen (*Gen. An.* ii. 2 *fin.*); Ares was united with this goddess by the first inventors of this myth because warlike natures, as a rule, exhibit amorous propensities (*Pol.* ii. 9, 1269, b, 27); in the fable which tells how the Argonauts had to leave Heracles behind there lies a true political observation (*Polit.* iii. 13, 1284, a, 22); the story that Athene threw away the flute expresses the truth that this instrument is unnecessary for mental culture (*Polit.* viii. 6, 1341, b, 2); the worship of the Graces points to the necessity of reciprocity (*Eth.* v. 8, 1133, a, 2); the number three derives its significance in the popular religion from the fact that it is the first number which has beginning, middle, and end (*De Cœlo*, i. 1, 268, a, 14).

[2] Thus, *H. An.* vi. 35, 580, a, 15, ix. 32, 619, a, 18 he quotes several myths about animals; in the fragment from the Eudemus (Plut. *Cons. ad Apoll.* c. 27 fr. 40) he makes use of the story of Midas and Silenus; on his predilection for proverbs, cf. *supra*, vol. i. p. 256, n. 2.

[3] As is obvious from *Polit.* vii. 8, 1328, b, 11, c. 9, 1329, a, 29, c. 12, 1331, a, 24, c. 16, 1335, b, 14. But that he went so far in his zeal for religion as to assign the fourth part of the land collectively to the priesthood for the support of religion cannot be concluded (as has been suggested in *Ferienschr.* N. F. i. 303) from *Polit.* vii. 10, 1330, a, 8. Aristotle says indeed here that the land should be divided into pub-

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lic and private, and the latter again into two parts for the support of religion and the syssitia respectively, but he does not say that these parts should be of the same size.

[1] Cf. in this reference the quotations on the subject of his votive offerings and gifts to the dead, in chap. i. *ad fin.*

[2] *Polit.* vii. 17, 1336, b, 3: *ὅλως μὲν οὖν αἰσχρολογίαν ἐκ τῆς πόλεως, ὥσπερ ἄλλο τι, δεῖ τὸν νομοθέτην ἐξορίζειν . . . ἐπεὶ δὲ τὸ λέγειν τι τῶν τοιούτων ἐξορίζομεν, φανερὸν ὅτι καὶ τὸ θεωρεῖν ἢ γραφὰς ἢ λόγους ἀσχήμονας. ἐπιμελὲς μὲν οὖν ἔστω τοῖς ἄρχουσι μηθὲν μήτε ἄγαλμα μήτε γραφὴν εἶναι τοιούτων πράξεων μίμησιν, εἰ μὴ παρά τισι θεοῖς τοιούτοις οἷς καὶ τὸν τωθασμὸν ἀποδίδωσιν ὁ νόμος· πρὸς δὲ τούτοις ἀφίησιν ὁ νόμος τοὺς ἔχοντας ἡλικίαν πλέον προήκουσαν καὶ ὑπὲρ αὑτῶν καὶ τέκνων καὶ γυναικῶν τιμαλφεῖν τοὺς θεούς.* The latter admission clearly shows how Aristotle endeavoured to make things which he disapproved of and only unwillingly permitted, at least as harmless as possible.

CHAPTER XVII

RETROSPECT

THE peculiar traits of the Aristotelian philosophy are due to the fusion in it of the two elements to which attention was called at the outset,[1] namely the dialectic or speculative, and the empirical or realistic. On the one hand the system finds the true essence of things to consist in immaterial form, true knowledge of them in the apprehension of their concept; on the other hand, it insists that the form should not be conceived of as a transcendental 'idea' existing apart from things, and that it is the individual, and not the universal notion or genus, that is the ultimate reality. It therefore represents experience as the only source of concepts, which are obtained, not by turning away from the actual to an ideal world, but by apprehending in their essence the data of experience themselves; thus, while pursuing the dialectic development of the concept, it unites with it a comprehensive observation of the facts. Both traits have their roots equally in the intellectual capacity of its author, whose greatness just consists in this rare union in equal measure of qualities which in most men are found to be mutually exclusive of one another: the faculty, namely, of philosophic thought and the power of accurate observation applied with living interest to the world of fact. Hitherto these elements have been combined in very different proportions in philosophy. In the school of Socrates and Plato the art of developing the concept had far outstript the power of appreciating the fact. They had directed attention to what is inward in man to the neglect of the outward world, and had regarded thought itself as the immediate source of our truth. Thought, that is to say, conceptions, stood for what was absolutely certain, the criterion by which the truth of experience was to be tested. The strongest expression of, as well as the most remarkable deduction from, this theory is to be found in the Platonic doctrine of Ideas. Aristotle indeed shares the general presuppositions of this idealistic philosophy; he also is convinced that the essence of things is only known by thought, and consists only in that which is the object of our thought, or, in other words, in the form and not in the matter. He justly takes exception, however, to the transcendental character of the Platonic Ideas. He cannot conceive of the form and the essence as existing separately from the things whose form and essence they are. Reflecting further that our own conceptions are not independent of experience in their origin, he is the more convinced of the error of the Platonic separation between the Ideas and the phenomena. In place, then, of the doctrine of Ideas he presents us with an essentially new view. It is not the genus but the individual which, according to Aristotle, constitutes the substantial reality; the form does not exist as a universal *apart from* the thing, but *in it* as the special form of this or that particular. While the general principle upon which the Platonic Idealism is founded is thus retained, the special development of it into the doctrine of Ideas is rejected. The 'Idea,' which Plato had conceived of as transcendental and supersensible, has a new place assigned to it as the formative and efficient principle in the phenomenal world. As the inner essence of things, it is sought for in the facts themselves, as these present themselves to us in experience. The Aristotelian doctrine may thus be described as alike the completion and the confutation of the Platonic. It confutes it in the form which Plato had given to it: yet at the same time it develops his fundamental thought still more fully and logically than Plato himself had done, in that it attributes to form not only, with him, complete and primary reality, but also a creative force to produce all else that is real. Aristotle, therefore, traces the potency of thought much deeper than Plato had been able to do throughout the whole field of phenomena.

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[1] Vol. i. p. 170 sqq.

From this fundamental principle all the leading doctrines of the Aristotelian philosophy logically follow. Since the universal cannot exist apart from the individual it cannot form an independent reality by itself, the individual alone has substantial reality. And since the form is conceived of, not as absolute essence, abstracted from phenomena, but as the efficient cause which works in them, it cannot stand as it does in Plato in a relation of mere opposition to that which is the substratum of phenomena—namely, matter. If form is the absolutely real, matter cannot be the absolutely unreal and non-existent; for, in order that form may be able to realise itself in the matter, there must exist between the two a kinship or positive relation as well as the apparent antagonism. So matter is merely unrealised form, it is the potentiality of which form is the actuality.[1] From this mutual relationship arises motion, and with it all natural life, all growth and decay, all change and transmutation. But since the two principles of form and motion stand originally towards one another in a relation of mere antagonism and opposition, this relation itself, or in other words motion, presupposes for form an absolute existence; if it is the cause of all motion, it must itself be unmoved, and precede all that is moved—if not in order of time, at least in the logical order of reality. From the sum of the forms which are embodied in matter we must therefore distinguish the *primum movens*, or God, as pure form or pure reason whose only object is itself. Since all motions proceed from form, they must all be striving towards a certain definite form as their goal. There is nothing in nature which has not its own indwelling end; and since all motion leads us back to a primary source of movement, the sum total of things is subordinate to some highest end, and constitutes an organic whole—in other words, an ordered world. But since form operates in matter which only gradually develops into that which it is destined to become, the formal design can only realise itself under manifold restraints, and in conflict with the resistance of matter, at one time with greater at another with less perfection. Thus the world is composed of many parts, which vary infinitely in worth and beauty ; these again fall apart into the two great sections of heaven and earth, of which the former exhibits a gradual diminution, the latter, contrariwise, a gradual increase in perfection. But while all parts of the world down to the most imperfect and insignificant are essential elements in the whole, still the definite and peculiar character of each has a claim upon our regard, and accordingly it is not less in harmony with the demands of the system than with the personal inclinations of its author to investigate great things and small alike with scientific thoroughness, and to treat nothing with contempt as if it were insignificant and worthless for science.[1] This does not, of course, exclude such degrees of importance among things themselves as Aristotle has sought to point out in the sphere, for example, of animate nature. So among mundane beings the first place is assigned to man, since in him alone spirit reveals itself as spirit. The chief end of man, therefore, consists in the cultivation and exercise of his spiritual capacities: in other words, scientific knowledge and moral will are the essential conditions of happiness. But as no work is possible without appropriate material, it is impossible for man to dispense with external aids for the realisation of his end; and as all things develop into that which they are capable of becoming only by a gradual process, so in the spiritual life of man there is exhibited a gradual process of development. Thus from sense perception spring imagination and memory, from these arises thought; natural capacity precedes moral action, practice and habit precede moral knowledge; reason appears first as passive and as entangled in the lower faculties of the soul before it realises itself as active in the purity of its being. The highest perfection of our spiritual life consists, however, in scientific contemplation, for here alone reason is in immediate contact with the pure forms of things, while at the same time it is beyond question that reason cannot confine itself to the immediate knowledge of first principles, but methodically pressing forward from phenomena to conceptions, and tracing causes to their effects, must finally embrace the whole sphere of reality.

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[1] Cf. p. 340 sqq., vol. i.

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[1] See on this head, vol. i. p. 167, n. 3, p. 169, n. 3, and also PLATO'S statements noted, *Ph. d. Gr.* i. p. 665.

This short survey has already shown us in the Aristotelian system a well-planned doctrinal structure, the outlines of which are drawn with a firm hand in accordance with one fundamental thought. The care and consistency with which the design is executed down to the minutest detail is manifest from the whole preceding account. It is nevertheless true that, as we have already had frequent occasion to remark, all the joints of the fabric are not equally secure; and the ultimate source of this defect must be sought for in the fact that the foundations of the whole have not been laid sufficiently deep. Putting aside all those points in which the want of experimental knowledge has led Aristotle to draw false conclusions and put forward untenable explanations, and limiting ourselves merely to the question of the self-consistency of his doctrine, without entering upon that of its absolute truth, we cannot deny that Aristotle has failed to unite the chief points of view in his system in a manner free from self-contradiction. Just as in his scientific procedure dialectic and observation, the speculative and the empirical elements, are not equally balanced, but the *a priori* method common to Socrates and Plato continually re-asserts itself over the more strictly empirical,[1] so also in his metaphysical speculations we detect a similar phenomenon. There is nothing in the Platonic system which is so distasteful to him as that dualism between Idea and phenomenon which expressed itself sharply in the doctrine of the absolute existence of the Ideas, and of the non-reality of matter. His opposition to this dualism is the key-note of his whole reconstruction of the Platonic metaphysics and of the fundamental ideas peculiar to his own system. And yet, earnest and thorough as are his efforts to overcome it, he has not, after all, succeeded in doing so.

He denies Plato's doctrine that universal class notions possess substantial reality; but he asserts with him that all our conceptions are of the universal, and depend for their truth upon the reality of their object.[2] He combats the transcendental character of the Platonic Ideas and the dualism between Idea and phenomenon. But he himself leaves form and matter in a like fundamental opposition to one another, in that he fails to trace them back to a common source; and the further development of these two principles involves him in the contradiction[3] of maintaining that the essence and substance of things is in the form, which at the same time is a universal, and yet that the source of individuality and therefore also of substantiality must be the matter. He takes exception to Plato's doctrine on the ground that his Ideas contain no principle of motion; nevertheless his own account of the relation between form and matter leaves all actual motion equally unexplained. He places God as a personal being outside the world; but lest he should derogate in anything from his perfection, he thinks it necessary to deny to him the essential conditions of personality. So, to escape involving him in the transmutations of finite things, he limits God's operation (herein contradicting the more living idea of God which he elsewhere entertains) to the production of motion in the outer cosmic sphere, and so pictures that activity to himself, as to assign spatial existence to the Deity.

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[1] See *sup*. vol. i. p. 175 sq. p. 258, sqq.

[2] Cf. vol. i. p. 334 sqq.

[3] On which cf. vol. i. p. 372 sqq.

Connected with this is the obscurity which surrounds his conception of Nature. In the spirit of antiquity he describes Nature as a single being who operates with a purpose, as a rational all-efficient power: and yet his system supplies no subject of which these attributes may be predicated.[1] Far as Aristotle has advanced beyond the superficial teleology of Socrates and Plato, he has none the less failed actually to solve the opposition between physical and final causes;[2] and while we must admit that the problem with which he is here face to face is one that still taxes our resources, and that we cannot therefore reproach him with having failed to solve it, it is yet curious to note how easily the two principles which he had posited at the outset of his philosophy of nature might in the sequel become mutually contradictory and exclusive of one another. A further difficulty arises in connection with the Aristotelian account of animate nature, and especially of man, inasmuch as it is hard to discover any inner principle of union between the various elements of the soul, and harder still to explain the phenomena of its life, if, like every other moving force, the soul is held to be itself unmoved. The difficulty, however, becomes greatest when we ask how we are to comprehend in the unity of personal life the reason of man and the lower faculties of his soul, and to determine the share of the former in his spiritual acts and states; how we are to conceive of what is passive and incorporeal as at the same time part of a soul which by its very definition is the ‘entelechy’ of the body, and to assign to personality its place between the two constituent parts of human nature of which the one transcends it while the other sinks below it.[1]

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[1] Cf. with the above remarks vol. i. p. 420 sq.

[2] As will be obvious from p. 358 sqq. p. 464 sqq. and p. 17, *sup.*

Turning finally to his Moral Philosophy, we find that here also Aristotle strove with much success to correct the one-sidedness of Socrates and Plato. He not only contradicts the Socratic doctrine that Virtue is Knowledge, but sets aside also Plato's distinction between ordinary and philosophic Virtue. To him, all moral qualities are a matter of the Will, and have their primary source not in instruction but in habit and education. Nevertheless in the account of the intellectual virtues there reveals itself an unmistakable vacillation as to the relation in which moral knowledge stands to moral action, while in the preference for theoretic over practical activity[1] (which follows indeed quite logically from the Aristotelian doctrine of the soul) there reappears the same presupposition which lay at the root of the very views that Aristotle controverted. So, too, even in his political philosophy, however deep its insight in other respects into the actual conditions of social life, and however great its superiority to Plato's political idealism, we yet find remnants of the old idealism—if not so much in the picture of the best State, yet in that distinction between true and false forms of government the untenableness of which becomes manifest by the ambiguous position which the doctrine itself assigns to 'polity.'[2] There thus runs through every part of the Aristotelian system that *dualism* which it had inherited from Plato, and which, with the best intentions, it never succeeded, after it had once accepted it as one of its fundamental principles, in wholly overcoming. The more earnestly, on the other hand, Aristotle strives to transcend this dualism, and the more unmistakable the contradictions in which he involves himself by his efforts, the clearer it becomes how heterogeneous are the elements which are united in his philosophy, and how difficult the problem which Greek philosophy had to face when once the opposition between idea and phenomenon, spirit and nature, had been brought so clearly and sharply into view as it was in the Platonic doctrine.

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[1] P. 119 sqq.

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[1] Cf. p. 142 sq., *supra*, and the proposition (p. 396, vol. i.) that only theoretic activity belongs to God—which Aristotle expressly applies to Ethics.

[2] See p. 213, *supra*.

Whether Aristotle provided the means of satisfactorily solving this problem, and what attempts in this direction were made by the later schools, it will be the task of this work to investigate as it proceeds. Those early followers who continued to build on Aristotelian foundations and who belonged to the Peripatetic school, could not be expected to find a more satisfactory answer to the main problem than Aristotle himself had succeeded in finding. Aristotle's own conclusions were much too deeply rooted in the fundamental presuppositions of his system to permit of their being altered without a reconstruction of the whole. Yet on the other hand, thinkers so keen and independent as the men of this school continued to be, could not shut their eyes to the difficulties of the Aristotelian doctrine, and it was therefore natural that they should devise means of escaping them. But since these difficulties ultimately arose from the fact that idealism and observation, a spiritual and a naturalistic view, had been united without being completely reconciled, and since such a reconciliation was impossible on the given premises, there was no way of solving the contradiction but by the suppression of one of its terms. It was, however, to be expected in the circumstances that the scientific should obtain the preference over the dialectic element, for it was the former that constituted the distinguishing characteristic of the Aristotelian school in opposition to the Platonic, and the new interest thus implanted in it by its founder naturally exercised a stronger fascination than the older doctrine of Ideas which had been handed down by the common tradition from Socrates and Plato. It was just this side of the Aristotelian system which might be expected chiefly to attract those who gave their allegiance to the later philosophy, and so to have an undue prominence assigned to it in subsequent deductions from Aristotelian ideas. The further development of the Peripatetic school corresponds to this expectation. Its most important result in the immediately succeeding period was to bring the purely naturalistic view of the world more and more into prominence, to the neglect of the spiritual side of things.

CHAPTER XVIII

THE PERIPATETIC SCHOOL: THEOPHRASTUS

AMONG the numerous pupils of the Stagirite, Theophrastus occupies the first place.[1] Born at Eresos in Lesbos,[2] he came early (perhaps even before the death of Plato) into connection with Aristotle,[3] from whom in point of age he was not far removed.[1] Before his death Aristotle committed to his charge not only his private affairs[2] but also his School, which he had probably already handed over to him on his departure from Athens.[3] Under Theophrastus the school grew even

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[1] DIOG. v. 35: *τοῦ δὴ Σταγειρίτου γεγόνασι μὲν πολλοὶ γνώριμοι, διαφέρων δὲ μάλιστα Θεόφραστος.* SIMPL. *Phys.* 225, a. and: *τῷ κορυφαίῳ τῶν Ἀριστοτέλους ἑταίρων Θεοφράστῳ*; id. *Categ. Schol. in Ar.* 92, b, 22: *τὸν ἄριστον τῶν αὐτοῦ μαθητῶν τὸν Θεόφρ.* That he was actually so is evident from all that we know of Theophrastus and his position in the Peripatetic School.

[2] He is constantly called Ἐρέσιος. According to PLUT. *Adv. Col.* 33, 3, p. 1126; *N. p. suav. vivi sec. Epic.* 15, 6, p. 1097, he had delivered his native city twice from Tyrants. No particulars, however, are given, and we are not in a position to test the historical character of the statement.

[3] According to DIOG. v. 36 he first attended at Eresos the instructions of a citizen called Alcippus, *εἶτ' ἀκούσας Πλάτωνος* [this is chronologically possible] *μετέστη πρὸς Ἀριστοτέλην*—by which it can only be meant that Theophrastus, like Aristotle himself, remained a member of the Academy until the death of Plato, and after that event continued with Aristotle. From several indications, moreover, we gather that Theophrastus was with Aristotle in Macedonia; for unreliable as is AELIAN'S statement (*V. H.* iv. 19) that he was highly esteemed by Philip, it makes it all the more certain that he was a friend of Callisthenes, whom he could only have come to know at that time, and that he lamented his tragic end in a work entitled Καλλισθένης ἢ περὶ πένθους (CIC. *Tusc.* iii. 10, 21, v. 9, 25; DIOG. v. 44; ALEX. *De An.* 162, b *fin.*). The possession of a property at Stagira (DIOG. v. 52) and the repeated mention of this town, and of the museum in it, also go to prove that he was there at the same time as Aristotle. The expression which the latter is said to have used with regard to him and Callisthenes (DIOG. 39) is all the

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more suspicious as it is also attributed to Plato and Isocrates (see *Ph. d. Gr.* i. 842, 1). Similarly the assertion that Theophrastus was originally called Tyrtamus, and received the name *Θεόφραστος* from Aristotle on account of his graceful style (STRABO, xiii. 2, 4, p. 618; CIC. *Orat.* 19, 62; QUINTIL. *Inst.* x. 1, 83; PLIN. *H. Nat. praef.* 29; DIOG. 38; SUID. *Θεόφρ.*; AMMON. *De Interpr.* 17, b, and: OLYMPIOD. *V. Plat.* p. 1) is justly called in question by BRANDIS, iii. 251, and MEYER (*Gesch. der Botanik*, i. 147).

[1] The year of Theophrastus's birth and death can only be determined approximately. According to APOLLODORUS (*Diog.* 58) he died Ol. 123 (288–284 B.C.), but the year is not given; that it was the third year of the Olympiad (BRANDIS, iii. 254; NAUWERCK, *De Strat.* 7), and that he was himself the head of the school for thirty-five (BRANDIS *ibid.*) or thirty-six (RITTER iii. 408) years is mere conjecture. DIOG. 40 gives his age as eighty-five, and this is far more probable than the statement of the spurious letter prefixed to Theophrastus's *Characters*, that he composed this treatise at the age of ninety-nine, and of HIERONYMUS (*Ep.* 34 *Ad Nepotian.* iv. b, 258 Mart., where our text has 'Themistoclem' instead of 'Theophrastum'), that he was 107, for Diog. probably here follows Apollodorus; these statements, moreover, make him older than Aristotle, and much too old to be destined by the latter (see following note) as the husband of his daughter, who was not yet grown up. According to Diog., Theophrastus's birth falls between 373 and 368 B.C.; he was therefore from eleven to sixteen years younger than Aristotle.

[2] He begs Theophrastus, along with some others, until Nicanor can interest himself in the matter, *ἐπιμελεῖσθαι . . . ἐὰν βούληται καὶ ἐνδέχηται αὐτῷ, τῶν τε παιδίων καὶ Ἑρπυλλίδος καὶ τῶν καταλελειμμένων*, and in case Nicanor, for whose wife he had destined his daughter Pythias, should die before the marriage took place, he enjoins upon him the duty of marrying her in his stead and becoming the guardian of her younger brother. (See his Will, DIOG. v. 12, 13.) Theophrastus actually undertook the education of the latter, as he also afterwards did that of the sons of Pythias (see p. 20, n. 3, vol. i.; DIOG. 53; SEXT *Math.* i. 258), and his affection for him gave occasion to one Aristippus, *περὶ παλαιᾶς τρυφῆς*, to accuse him of erotic relations with him (DIOG. 39). In his Will (*ibid.* 51 sq.) Theophrastus leaves directions for the execution of pictures of Aristotle and Nicomachus.

[3] See p. 37, and p. 39, n. 1.

more flourishing,[1] and when, after holding the presidency for more than thirty-four years,[2] he died, honoured in spite of many hostile attacks[3] both at home and abroad,[4] he left it as an endowment the garden and the hall in which henceforth it had its settled abode.[5] Nor were his services to the Peripatetic doctrine less conspicuous. In creative power of intellect he is not indeed to be compared with Aristotle. But he was in an especial degree fitted for the work of strengthening, extending and completing the system which the latter had left behind him. The interest in science by which he was governed even to excess, and which led him to subordinate all other concerns to its peaceful pursuit and even to forego the pleasures of the family life;[1] the insatiable thirst for knowledge which drew from him even when dying complaints of the shortness of human life;[2] the industry which scarcely relaxed in extreme old age;[3] the penetration, conspicuous even in what has come

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[1] DIOG. 37: ἀπήντων τε εἰς τὴν διατριβὴν αὐτοῦ μαθηταὶ πρὸς δισχιλίους. If by this is meant that he had this number during his whole life we must suppose that the inner circle of his students is referred to; if he had them all at one time it can only have been at single lectures, perhaps on rhetoric or some other popular subject. Zeno's expression (PLUT. *Prof. in Virt.* c. 6 *fin.* p. 78; *De se ipso laud.* c. 17, p. 545) ὁ ἐκείνου χορὸς μείζων, ὁ ἐμὸς δὲ συμφωνότερος refers to the number of his students.

[2] See p. 349, n. 1, *supra.*

[3] See following note. Of the Epicureans besides Epicurus himself (PLUT. *adv. Col.* 7, 2, p. 1110) the hetaera Leontium also wrote against him; CIC. *N. D.* i. 33, 93.

[4] Of foreign princes Cassander and Ptolemy, according to DIOG. 37, gave him proofs of their esteem; to the former of whom was dedicated a treatise π. βασιλείας, the genuineness of which, however, was doubted by some (DIOG. 47; DIONYS. *Antiquitt.* v. 73; ATHEN. iv. 144, e). The esteem in which he was held at Athens was shown at his burial (DIOG. 41), as also previously in the matter of the accusation of impiety brought against him by Agnonides, which failed completely (perhaps AELIAN, *V. H.* viii. 12, relates to this), and in the matter of the law of Sophocles (cf. also ATHEN. xiii. 610, e; KRISCHE, *Forsch.* 338), which made the consent of the Senate and people necessary for the opening of a philosophical school. When, in consequence of this law (prob. *ann.* 306–5), all the philosophers, and among them Theophrastus, left Athens it is said to have been chiefly regard for him which caused its repeal and the punishment of its author; DIOG. 37 sq., cf. ZUMPT, *Ueber den Bestand der philos. Schulen in Athen, Abh. der Berl. Akad. hist.-phil. Kl.* 1842, 41 sq.

[5] DIOG. 39: λέγεται δ' αὐτὸν καὶ ἴδιον κῆπον σχεῖν μετὰ τὴν Ἀριστοτέλους τελευτὴν, Δημητρίου τοῦ Φαληρέως . . . τοῦτο συμπράξαντος. Theophrastus's will, *ibid.* 52: τὸν δὲ κῆπον καὶ τὸν περίπατον καὶ τὰς οἰκίας τὰς πρὸς τῷ κήπῳ πάσας δίδωμι τῶν γεγραμμένων φίλων ἀεὶ τοῖς βουλομένοις συσχολάζειν καὶ συμφιλοσοφεῖν ἐν αὐταῖς (ἐπειδήπερ οὐ δυνατὸν πᾶσιν ἀνθρώποις ἀεὶ ἐπιδημεῖν) μήτ' ἐξαλλοτριοῦσι μήτ' ἐξιδιαζομένου μηδενὸς, ἀλλ' ὡς ἂν ἱερὸν κοινῇ κεκτημένοις . . . ἔστωσαν δὲ οἱ κοινωνοῦντες Ἵππαρχος &c. It is probable that the sanctuary of the Muses, described § 51 sq., with its two chambers, in one of which were hung the πίνακες ἐν αἷς αἱ τῆς γῆς περίοδοί εἰσιν, belonged to the buildings here mentioned. From the words, § 39, μετὰ τὴν Ἀρι-

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στοτέλους τελευτὴν ZUMPT infers, *ibid.* 31 sq., that Aristotle had previously possessed this garden, and that as it was to be sold after his death Demetrius managed that it should be transferred to Theophrastus. BRANDIS (iii. 253) considers this inference a rash one, but also supposes that Aristotle taught in a house and garden of his own in the Lyceum. We have no information, however, on this point; yet the opposite cannot, after what has been said p. 38, vol. i., be inferred with any certainty from the fact that Aristotle's will makes no mention of any such property. Even the words upon which ZUMPT relies, if they have any special force, may with equal reason be held to imply that the Peripatetic school did not become the owner of property till after Aristotle's death. It is most probable, therefore, that Aristotle did not give his instructions in a garden of his own. According to ATHEN. v. 186, a (i. 402, Dind.), Theophrastus left behind him also means to provide common meals for members of the school.

[1] That Theophrastus was still unmarried at the time of Aristotle's death is obvious from the will of the latter (see p. 349, n. 2, *supra*); that he remained so is obvious from his own and from the total absence of any statement to the contrary. The reason why he disdained the married state he himself gives us in the fragment in HIERON. *Adv. Jovin.* i. 47, iv. b, 189, Mart., hereafter to be discussed, where he dissuades the philosopher from it, chiefly on the ground that it brings with it disturbances incompatible with the scientific life.

[2] CIC. *Tusc.* iii. 28, 69; DIOG. v. 41; HIERON. *Epist.* 24 *Ad Nepotian.* iv. b, 258 Mart.

[3] DIOG. 40: ἐτελεύτα δὴ γηραιὸς . . . ἐπειδήπερ ὀλίγον ἀνῆκε των πόνων.

down to us of his writings; that grace of language and delivery, the fame of which survived him,[1] as well as the independence of his outward circumstances[2] and the possession of all the requisite means for the prosecution of his learned labours[3]—all these must have contributed in a high degree to promote his success as a scientific investigator and teacher. The numerous writings which he left behind him as a monument to his diligence extend to every part of the field of knowledge that was then open.[4] To us only a small portion of these multitudinous works remains: the two on botany,[1] a few shorter treatises on natural

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[1] Cf. besides the passages quoted *supra*, p. 348, n. 3 *fin.*: CIC. *Brut.* 31, 121: *quis . . . Theophrasto dulcior?* *Tusc.* v. 9, 24: *hic autem elegantissimus omnium philosophorum et eruditissimus.* In his case, as in Aristotle's, this merit belongs chiefly to his popular writings, and especially to the dialogues, which, like Aristotle's, are described as exoteric (see p. 111, n. 2, 3, vol. i.). PROKL. *In Parm.* i. *fin.* p. 54 Cous. complains that the introductions in them do not hang together with the main content. According to HERMIPPUS (ATHEN. i. 21, a) his personal adornment was excessive and his delivery too theatrical. Frequent mention is made of his witticisms, *e.g.* PLUT. *Qu. Conv.* ii. 1, 9, 1, v. 5, 2, 7 (vii. 10, 2, 15); *Lycurg.* c. 10 (*Cupid. Div.* c. 8, p. 527; PORPH. *De Abstin.* iv. 4, p. 304).

[2] We may infer Theophrastus's opulence from his will (DIOG. v. 51 sqq.), which specifies considerable property in land, slaves, and money, although the total amount of the last (§ 59 sq.) is not stated.

[3] Mention is made of his library, of which Aristotle's constituted the ground floor, in STRABO, xiii. 1, 54, p. 608, and in his will (DIOG. 52; ATHEN. i. 3, a, where τούτων shows that Theophrastus's name has fallen out after that of Aristotle). O. KIRCHNER, *Die Botan. Schr. d. Theophr.* (*Jahrb. f. Philol. Supplementbd.* vii. 1874, p. 462 sqq.), makes it appear probable from Theophrastus's botanical works that besides many parts of Greece and Macedonia he had visited Crete, Lower Egypt, perhaps also Southern Thrace, and the coast of Asia Minor, and thus added the knowledge of foreign countries to his other means of research.

[4] Hermippus and Andronicus had made lists of his works (see p. 49, n. 4, vol. i.; PLUT. *Sulla*, 26; cf. PORPHYR. *Vit. Plotini*, 24); DIOG. v. 42–50 has presented to us one (upon which cf. the minute investigations of USENER, *Analecta Theophrastea*, Leipsic, 1858, 1–24; and on the treatises on logic which it contains, PRANTL, *Gesch. der Log.* i.

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350). This list not only omits some known writings (USENER, 21 sq.) but follows a strange order. After two alphabetical lists, of which the second is clearly supplementary to the first, but both of which probably give only those of the writings of Theophrastus which were to be found in the Alexandrine or some other great library, follow two more supplements; the first of these is not arranged according to any definite principle, the second, if we exclude some insertions, is again alphabetical. It is not improbable that this list, as Usener thinks, is Hermippus's, come to us (cf. ROSE, *Arist. Libr. Auct.* 43 sq.) through Favorinus, from whom DIOG. immediately before (v. 41) quotes Hermippus, and whose name is also introduced before the list of ARIST.'s writings (v. 21) and before PLATO's will (iii. 40). How far the writings here enumerated are genuine we have scarcely any means of judging; USENER, p. 17, makes it probable that a few of them (the *History of Geometry, Astronomy, and Arithmetic,* perhaps also the *History of Theological Opinions,* v. 48, 50) belonged to Eudemus.

[1] Π. φυτῶν ἱστορίας nine books; π. φυτῶν αἰτιῶν six books. It has already been shown (*supra,* vol. i. p. 93, n. 2), that these works are by Theophrastus and not by Aristotle; in determining the date of their composition we have further to take into consideration the allusions, *Hist. Pl.* v. 2, 4, to the destruction of Megara by Demetrius Poliorcetes (Ol. 118, 2 = 306 B.C.), vi. 3, 3, to the archonship of Simonides (Ol. 117, 2), iv. 3, 2, to the expedition of Ophellas (Ol 118, 1), ix. 4, 8, to King Antigonus. *Hist. Pl.* v. 8, 1, also refers to the period subsequent to the conquest of Cyprus by Demetrius Poliorcetes (DIODORUS, xx. 47 sqq. 73 sqq.), and was therefore written after Ol. 118, 2. (Cf. BRANDIS, iii. 322 sq.) SIMPLICIUS's statement, *Phys.* 1, a, that Aristotle treated of plants partly historically and partly ætiologically can hardly refer to these two works, and is the less important since SIMPL. (as already remarked, vol. i. p. 93, n. 2), had no personal acquaintance with Aristotle's treatise upon plants. In the two works of Theophrastus, besides many corruptions in the text, there are a number of lacunæ. In the π. φυτῶν αἰτιῶν the last sections (perhaps two books, since DIOG. 46 speaks of the treatise as consisting of eight) are unmistakably lost (cf. SCHNEIDER, *Theophr. Opp.* v. 232 sqq.). The ascription by DIOG. 46 of ten books to the ἱστορία is perhaps to be explained by the supposition that one of those which we have (SCHNEIDER, *ibid.* thinks the fourth, which certainly has a break, c. 12 *fin.*) was divided in some manuscripts; contrariwise the fact that *Hist.* viii. 4, 5 and ix. 18, 2 are quoted by APOLLON. *Mirab.* 33, 41, as respectively from ζ′ and η′ περὶ φυτῶν points to the loss of one of the earlier

science,[1] fragments of a work on metaphysics[2] and of the important history of physics[3] (which seems to have been the treasure-house from which later tradition chiefly

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books or its combination with another. On the other hand, the view that the ninth book of the botanical treatise did not originally belong to it (Wimmer, *Theophr. Hist. Plant.* 1842, p. ix.) is with good reason rejected by Kirchner, *De Theophr. Libr. Phytol.* 34 sqq.: it is known as part of the treatise not only to Diog. (*ibid.*) but to Apollon., who in c. 29 quotes ix. 13, 3; 20, 4, c. 31, ix. 17, 4, c. 41, ix. 18, 2, c. 48, ix. 11, 11, c. 50, ix. 17, 3 (here expressly as the ἐσχάτη τῆς πραγματείας); it is unmistakably referred to in the sixth book *De Caus. Plant.*, even quoted ii. 6, 4 (cf. *Hist.* ix. 18, 10), its contents are forecast i. 12, 1, and in 1, 4; 2, 2; 8, 8; 19, 1, it refers back itself to the earlier books. Similarly Meyer (*Gesch. d. Botanik*, i. 176 sq.) and Brandis, iii. 32 sq., are right in again setting aside the view that the sixth book *De Causis Pl.* could be a separate work or wholly spurious. Even the remarks upon the number seven, c. 4, 1, 2, which Brandis finds strange, contain nothing surprising; Aristotle had already counted seven primary colours and seven tastes corresponding to the seven notes (see *supra*, vol. i. p. 518, n. 3), and a statement similar to that which is here made about the number seven, is to be found in Theophr. *De Ventis* (Fr. 5), 49, about the number three.

[1] See Schneider, *Opp.* i 647 sqq. Wimmer, vol. i i. of his edition (1862).

[2] Metaphysical aporiæ, with regard to which we do not know whether they belonged to a more comprehensive work or merely to an introductory treatise. According to the scholium at the end, the work of which they were a part was not included either by Hermippus or by Andronicus in their lists but quoted by Nicolaus (of Damascus). On the manifold corruptions of its text, see besides the edd. of Brandis (*Arist. et Theophr. Metaph.* 308 sqq.) and Wimmer (*Fragm.* No 12), Usener in the *Rhein. Mus.* xvi 259 sqq.

[3] This work is called sometimes φυσικὴ ἱστορία (Alex. apud Simpl. *Phys.* 25, a, o.), sometimes φυσικὰ (Diog. ix. 22; Simpl. *De Cœlo*, *Schol. in Ar.* 510, a, 42; Stob. *Ekl.* i. 522), elsewhere φυσικαὶ δόξαι (Diog. v. 48), περὶ φυσικῶν (*ibid.* 46), π. τῶν φυσικῶν (Alex. *Metaph.* 24, 4; *Bon.* 536, a, 8 bk.), π. τῶν φυσικῶν δοξῶν (Taurus apud Philop. *Adv. Procl.* vi. 8, 27). Diog. v. 46, assigns to it eighteen books, v. 48, 16. Usener, *Anal. Theophr.* 30 sqq., has collated the fragments of it; but the treatise, περὶ αἰσθήσεως καὶ αἰσθητῶν (Wimmer, fr. 1), which Philippson deals with, ὕλη ἀνθρωπίνη (1831), 81 sqq. (cf. Usener, *ibid.* 27), seems also to have belonged to it. On the other hand, the supposition that the extract *ap.* Philo. *Ætern. m.* c. 23–27, p. 510 sqq. Mang., is taken from it (Usener, p. 38; Bernays, *Theophrast. üb. Frömmigk.* 46) does

drew its accounts of the earlier physicists[1]) besides a number of other fragments.[2] The 'Characters' are only an incomplete extract, with several foreign additions, probably from Theophrastus's treatise upon Ethics.[3]

The chief feature of the scientific labours of Theophrastus, so far as these are known to us, is the endeavour to complete the compass and define more sharply the contents of Aristotelian doctrine. The fundamental principles of the system suffer no change and are not unfrequently stated in the very words of Aristotle.[4] Theophrastus, however, exerts himself to develop his doctrine as completely as possible on every side, to increase the number of scientific and ethical

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not commend itself; for a dogmatic and polemical discussion with Zeno the Stoic (as ZELLER has shown this to be in HERMES, xi. 422 sqq.) can have formed no part of an historical work, nor does it at all resemble the treatise *π. αἰσθήσεως*, either in tone or treatment. In the first book of the *φυσικὴ ἱστορία* THEOPHR. (as is shown in the *Abhandl. d. Berl. Akad.* 1877, p. 150 sqq.) had given a review of the principles of earlier philosophers, in which he connected his work with the first book of ARIST.'s *Metaphysics*.

[1] Fuller proof of this fact, which he was the first to perceive, will be found in H. DIELS' recent work, *Doxographi Græci*, as also *ibid.* p. 473 sq. the fragments of the *φυσικαὶ δόξαι*.

[2] To those collected in Wimmer must be added chiefly the remainder of the treatise *περὶ εὐσεβείας*, which BERNAYS (*Theophrast. Schrift über Frömmigkeit*) cleverly recovered from PORPHYRY'S *De Abstinentia*. The treatise on indivisible lines was also attributed to him, perhaps rightly. By some even ARIST.'s *Politics* (see vol. ii. *supra*, p. 204, n. 2) was referred to Theophrastus. More recent writers have attributed to him the treatises upon colour (SCHNEIDER, iv. 864, who, however, considers them only a portion of a larger work; on the other side see PRANTL, *Arist. v. d. Farben*, 84 sq.), upon Melissus, Xenophanes &c. (on this see *Ph. d. Gr.* i. 476 sqq.).

[3] On this and on the ethical writings of Theophrastus see *infra*.

[4] As among others, KIRCHNER. *Jahrb. f. Philol. Supplementb.* vii. 532 sqq. has shown in respect of the botanical works.

observations, to apply the Aristotelian rules to particular cases, especially to those which had been overlooked by Aristotle, to correct the vagueness of particular conceptions and to set them in a clear light.[1] His starting-point is experience. As Aristotle in all his investigations had taken his stand upon the firm ground of fact and had established even the most universal conceptions upon the basis of a comprehensive induction, Theophrastus also is convinced that we must begin with observation in order to attain to true conceptions. Theories must coincide with the data of experience, and they will do so if we start with the consideration of the individual;[2] perception furnishes the material which thought may either straightway apply to its own ends or by solving the difficulties which experience brings to light may utilise for future discoveries.[3] Natural science,

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Cf. BOETH. *De Interpr.* p. 292: *Theophrastus, ut in aliis solet, quum de similibus rebus tractat, quæ scilicet ab Aristotele ante tractatæ sunt, in libro quoque de affirmatione et negatione iisdem aliquibus verbis utitur, quibus in hoc libro Aristoteles usus est . . . in omnibus enim, de quibus ipse disputat post magistrum, leviter ea tangit, quæ ab Aristotele dicta ante cognovit, alias vero diligentius res non ab Aristotele tractatas exsequitur.*

[2] *Caus. Pl.* i. 1, 1: εὐθὺ γὰρ χρὴ συμφωνεῖσθαι τοὺς λόγους τοῖς εὑρημένοις. 17, 6: ἐκ δὲ τῶν καθέκαστα θεωροῦσι σύμφωνος ὁ λόγος τῶν γιγνομένων. ii. 3, 5: περὶ δὲ τῶν ἐν τοῖς καθέκαστα μᾶλλον εὐποροῦμεν· ἡ γὰρ αἴσθησις δίδωσιν ἀρχάς κ. τ. λ.

[3] Fr. 12 (*Metaph.*), 19: τὸ δὲ ὂν ὅτι πολλαχῶς φανερόν. ἡ γὰρ αἴσθησις καὶ τὰς διαφορὰς θεωρεῖ καὶ τὰς αἰτίας ζητεῖ. τάχα δ' ἀληθέστερον εἰπεῖν ὡς ὑποβάλλει τῇ διανοίᾳ, τὰ μὲν ἁπλῶς ζητοῦσα τὰ δ' ἀπορίαν ἐργαζομένη, δι' ἧς κἂν μὴ δύνηται προβαίνειν, ὅμως ἐμφαίνεταί τι φῶς ἐν τῷ μὴ φωτὶ ζητούντων ἐπὶ πλέον. *Ibid.* 25: μέχρι μὲν οὖν τινὸς δυνάμεθα δι' αἰτίου θεωρεῖν, ἀρχὰς ἀπὸ τῶν αἰσθήσεων λαμβάνοντες. CLEMENS, *Strom.* ii. 362, D; Θεόφρ. δὲ τὴν αἴσθησιν ἀρχὴν εἶναι πίστεώς φησιν· ἀπὸ γὰρ ταύτης αἱ ἀρχαὶ πρὸς τὸν λόγον τὸν ἐν ἡμῖν καὶ τὴν διάνοιαν ἐκτείνονται. SEXT. *Math.* vii. 217: Aristotle and Theophrastus have two criteria, αἴσθησιν μὲν τῶν αἰσθητῶν, νόησιν δὲ τῶν νοητῶν· κοινὸν δὲ ἀμφοτέρων, ὡς ἔλεγεν ὁ Θεόφρ., τὸ ἐναργές.

moreover, must rest upon perception because it has to do wholly with corporeal substance.[1] Theophrastus accordingly keeps this principle steadily in view. Where universal laws fail to explain particular facts, he does not hesitate to refer us back to experience;[2] where no complete certainty is possible he will content himself, like Plato and Aristotle, with mere probability;[3] where more exact proofs fail, he, like his master, brings analogy to his aid,[4] but he warns us at the same time not to carry analogy too far or to mistake the peculiar characteristics of phenomena,[5] just as Aristotle had laid down as a fundamental axiom that everything must be explained upon principles peculiar to itself.[6] We cannot say, in truth, that Theophrastus has entirely renounced the comprehensive and universal points of view; but his own inclinations and scientific researches have an unmistakable bias in the direction of particulars rather than fundamental principles.

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[1] Fr. 18: ἐπεὶ δὲ οὐκ ἄνευ μὲν κινήσεως οὐδὲ περὶ ἑνὸς λεκτέον, πάντα γὰρ ἐν κινήσει τὰ τῆς φύσεως, ἄνευ δὲ ἀλλοιωτικῆς καὶ παθητικῆς οὐχ ὑπὲρ τῶν περὶ τὸ μέσον, εἰς ταὐτά τε καὶ περὶ τούτων λέγοντας οὐχ οἷόν τε καταλιπεῖν τὴν αἴσθησιν, ἀλλ' ἀπὸ ταύτης ἀρχομένους πειρᾶσθαι χρὴ θεωρεῖν, ἢ τὰ φαινόμενα λαμβάνοντας καθ' ἑαυτὰ, ἢ ἀπὸ τούτων, εἴ τινες ἄρα κυριώτεραι καὶ πρότεραι τούτων ἀρχαί.

[2] *Caus. Pl.* ii. 4, 8: ἀλλ' ἐν τοῖς καθέκαστα τὸ ἀκριβὲς μᾶλλον ἴσως αἰσθητικῆς δεῖται συνέσεως, λόγῳ δὲ οὐκ εὐμαρὲς ἀφορίσαι. Cf. *Hist.* i. 3, 5. The differences between botanical species are somewhat vague; διὰ δὴ ταῦτα ὥσπερ λέγομεν οὐκ ἀκριβολογητέον τῷ ὅρῳ ἀλλὰ τῷ τύπῳ ληπτέον τοὺς ἀφορισμούς.

[3] SIMPL. *Phys.* 5, a, m: natural science cannot arrive at the complete certainty of knowledge; ἀλλ' οὐκ ἀτιμαστέον διὰ τοῦτο φυσιολογίαν· ἀλλ' ἀρκεῖσθαι χρὴ τῷ κατὰ τὴν ἡμετέραν χρῆσιν καὶ δύναμιν, ὡς καὶ Θεοφράστῳ δοκεῖ. Cf. also *supra*, vol. i. p. 167 sq.

[4] See *Caus. Pl.* iv. 4, 9–11; *Hist.* i. 1, 10 sq.

[5] *Hist.* i. 1, 4: we must beware of comparing plants with animals in every respect. ὥστε ταῦτα μὲν οὕτως ὑποληπτέον οὐ μόνον εἰς τὰ νῦν ἀλλὰ καὶ τῶν μελλόντων χάριν· ὅσα γὰρ μὴ οἷόν τε ἀφομοιοῦν περίεργον τὸ γλίχεσθαι πάντως, ἵνα μὴ καὶ τὴν οἰκείαν ἀποβάλλωμεν θεωρίαν.

[6] See *supra*, vol. i. p. 249, n. 1, 2, 3.

This is the method which Theophrastus and, following him, Eudemus have adopted in their treatment of logic. While holding fast by Aristotelian principles, they have permitted themselves many divergences in detail.[1] In discussing the Conception, for instance, Theophrastus refused to admit that all contraries belong to the same genus.[2] The doctrine of the Judgment, again, to which both Eudemus and he devoted separate treatises,[3] received at their hands various additions, which, however, so far as we know, were of no great importance.[4] They introduced a slight change in the theory of the Conversion of Propositions, with which Aristotle's treatment of the Syllogism begins, by substituting a direct, in place of Aristotle's indirect, proof of the simple converse of universal negative propositions.[1] As they further approached the question of the Modality of Judgments from a different side,[2] they con-

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[1] Cf. Prantl, *Gesch. der Log.* i. 346 sqq., who, however, seems to undervalue the contributions of Theophrastus and Eudemus to Logic.

[2] Cf. fr. 15 (Simpl. *Categ.* 105, α′; *Schol. in Ar.* 89, a, 15). Alex. on *Metaph.* 1018, a, 25; also *supra*, vol. i. p. 224, n. 3.

[3] Theophrastus in the treatises περὶ καταφάσεως καὶ ἀποφάσεως (Diog. 44, 46; Alex. in *Anal. Pr.* 5, a, m, 21, b, m, 124, a, 128; *Metaph.* 653, b, 15; Galen, *Libr. Propr.* 11, xix. 42, k; Boeth. *Ad Arist. de Interpr.* 284, 286, 291, 327, (Bâle); *Schol. in Ar.* 97, a, 38, 99, b, 36; Prantl, 350, 4), π. λέξεως (Diog. 47; Dionys. *Hal. Comp. Verb.* p. 212, Schäf.), π. τῶν τοῦ λόγου στοιχείων (as Prantl, 353, 23, in Simpl. *Categ.* 3, β, Bâle, rightly emends). As to Eudemus, π. λέξεως, see Alex. *Anal. Pr.* 6, b, in *Metaph.* 566, b, 15, Br.; *Anon. Schol. in Arist.* 146, a, 24; Galen, *ibid.* On their other logical treatises cf. *supra*, vol. i. p. 64, n. 1.. Prantl, p. 350, and *Eth. Eud.* i. 6 *fin.* ii. 6, 1222, b, 37, c. 10, 1227, a, 10.

[4] Theophrastus distinguishes in his treatise π. καταφάσεως between different meanings of πρότασις (Alex. *Anal. Pr.* 5, a, m; *ibid.* 124, a; *Top.* 83, a, 189, a. Similar distinctions are quoted from the same treatise and that π. τοῦ Πολλαχῶς (which was probably on the model of Aristotle's—see *sup.* vol. i. p. 76 sq.); Eudemus noticed the predicative force of the verb 'to be' in existential propositions (*Anon. Schol. in Arist.* 146, a, 24, and for another remark of Eudemus on the verb 'to be' see Alex. *Anal. Pr.* 6, b, m). Theophrastus called particular propositions indeterminate (see *sup.* vol. i. p. 233, n. 1, and Boeth. *De Interpr.* 340, m; *Schol.* in Waitz, *Ar. Org.* i. 40; Prantl, 356, 28), and Aristotle's

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indeterminate ἐκ μεταθέσεως (see *supra*, vol. i. p. 232, n. 2; *Stephanus* and *Cod. Laur.* in WAITZ, *ibid.* 41 sq; and on his reasons for doing so, PRANTL, 357). He distinguished in particular negative propositions between 'not all' and 'some not' (*Schol. in Ar.* 145, a, 30). In regard to the modality of judgments he made a distinction between simple necessity and necessity resulting from particular circumstances (ALEX. *An. P.* 12, b, u.). He elucidated contradictory opposition, which he declared in general to be indemonstrable (ALEX. on *Metaph.* 1006, a, 11, p. 653, b, 15, Br.), with the remark that contradictory propositions are absolutely exclusive of one another only when their meaning is fixed and definite (*Schol. Ambros.* in WAITZ, *ibid.* 40), a caution against sophistical objections to which PRANTL, p. 356, unnecessarily takes exception.

[1] In ARIST. *Anal. Pr.* i. 2, 25, a, 15, it stands: εἰ μηδενὶ τῶν B τὸ A ὑπάρχει, οὐδὲ τῶν A οὐδενὶ ὑπάρξει τὸ B. εἰ γάρ τινι, οἷον τῷ Γ, οὐκ ἀληθὲς ἔσται τὸ μηδενὶ τῶν B τὸ A ὑπάρχειν· τὸ γὰρ Γ τῶν B τί ἐστιν. Theophrastus and Eudemus put it more simply: 'if no B is A, A is separate from all B, B is therefore separate from all A, and therefore no A is B' (ALEX. *An. Pri.* 11, a, m. 12, a.; PHILOP. *An. Pr.* xiii. b; *Schol. in Ar.* 148, b, 46; cf. the scholium which PRANTL, 364, 45, gives from Minas). PRANTL criticises this 'convenient' proof: ZELLER, on the contrary, considers it the right one, and says that he cannot find for that of Aristotle 'reasons founded on the very nature of genus and species' as Prantl professes to do.

[2] Aristotle had taken the conceptions of possibility and necessity, as has been remarked (see *sup.* vol. i. p. 234 sq.) to express a quality of things, not of our knowledge of things. By the possible he does not understand that which we have no reason to deny, nor by the necessary that which we are forced to accept, but by the former that which by nature may equally be or not be, by the latter that which by its nature must be. Theophrastus and Eudemus, indeed, have left us no general statement on this subject (even in the passage quoted by PRANTL, 362, 41, from ALEX. *Anal. Pr.* 51, a, only the words 'τρίτον τὸ ὑπάρχον [sc. ἀναγκαῖόν ἐστιν]· ὅτε γὰρ ὑπάρχει τότε οὐχ οἷόν τε μὴ ὑπάρχειν,' seem to belong to THEO.'s *Prior Analytics*, while the rest belong to Alexander himself); but it is obvious from their departures from Aristotle, which we are about to mention, that they take possibility

sequently denied what Aristotle had affirmed, that every assertion of possibility implies the opposite possibility, and they maintained, against his denial, the convertibility of universal negative judgments of possibility;[1] while with regard to conclusions whose premises are of different modality, they held firmly by the principle that the conclusion follows the weaker premise.[2] We further know that Theophrastus added to the four Modes which Aristotle had assigned to the first Figure five new ones, obtained by the conversion of the conclusions or the premises, a development in which we certainly fail to see any advantage,[3] and it is possible that he treated the two other Figures in the same way,[4] asserting at the same time, in opposition to Aristotle, that these also give perfect conclusions.[5] He also

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and necessity only in the formal logical sense.

[1] See *sup.* vol. i. p. 234 sq. and ALEX. *Anal. Pr.* 14, a, m.; *Anon. Schol. in Ar.* 150, a, 8. The proofs of the two Peripatetics are given in a scholium which PRANTL, 364, 45, prints from MINAS'S notes on Galen's Εἰσαγωγὴ διαλεκτικὴ, p. 100. The same writer's quotation, 362, 41, from BOETH. *Interpr.* 428, upon Theophrastus relates merely to an unimportant explanation. Similarly a modification of an Aristotelian argument mentioned by ALEX. *Anal. Pr.* 42, b, n. is, as PRANTL, p. 370, also remarks, insignificant.

[2] From an apodeictic and a categorical premise follows, they said, a categorical; from a categorical and hypothetical, a hypothetical; from an apodeictic and hypothetical also a hypothetical conclusion (see *sup.* vol. i. p. 234 sq. and on the third case, PHILOP. *Anal. Pr.* li. a; *Schol. in Arist.* 166, a, 12; on an argument of Theophrastus relating to this, ALEX. *Anal. Pr.* 82, b.).

[3] For details see ALEX. *Anal. Pr.* 22, b. 34, b.—35, a; *Anon. Schol. in Ar.* 188, a, 4, and PRANTL'S citations, 365, 46, from APUL. *De Interpr.* (*Dogm. Plat.* iii.), 273 sq. 280, Oud.; BOETH. *Syll. Cat.* 594 sq.; PHILOP. *An. Pr.* xxi. b (*Schol.* 152, b, 15); cf. also UEBERWEG, *Logik*, 282 sqq.

[4] As PRANTL, 368 sq., conjectures from ALEX. *Anal. Pr.* 35, a. Cf. following note.

[5] *Schol.* in WAITZ, *Arist. Org.* i. 45: ὁ δὲ Βοηθὸς . . . ἐναντίως τῷ Ἀριστοτέλει περὶ τούτου ἐδόξασε . . . καὶ ἀπέδειξεν, ὅτι πάντες οἱ ἐν δευτέρῳ καὶ τρίτῳ σχήματι τέλειοί εἰσιν (which Aristotle denies, see *supra*, vol. i. p. 240, n. 4). . . . φαίνεται δὲ καὶ Θεό-

changed the order of several of the Modes.[1] It is more important, however, to note that Theophrastus and Eudemus introduced into logic the theory of Hypothetical and Disjunctive Syllogisms.[2] Both of these they embraced under the name Hypothetical, pointing out that in the Disjunctive also that which is undetermined at first is afterwards determined by the addition of a second clause.[3] They distinguished further two kinds of hypothetical conclusions: those which, consisting of purely hypothetical propositions, only assign the conditions under which something is or is not the case,[4]

φραστος . . . τὴν ἐναντίαν αὐτῷ (Aristotle) περὶ τούτου δόξαν ἔχων.

[1] In the third figure he placed the fourth of Aristotle's modes as simpler before the third, and the sixth before the fifth (*Anon. Schol. in Ar.* 155, b, 8; PHILOP. *ibid.* 34, 156, a, 11), adding a seventh mode which he obtained by dividing the first (APUL. *ibid.* p. 276).

[2] As ALEX. *An. Pr.* 131, b.; PHILOP. *An. Pr.* lx. a; *Schol. in Ar.* 169, b, 25 sqq., expressly state. According to BOETH. *Syll. Hypoth.* 606 (in PRANTL, 379, 59), Eudemus treated this subject more fully than Theophrastus.—Much less important are the citations from Theophrastus's discussions upon syllogisms κατὰ πρόσληψιν given by ALEX. *An. Pr.* 128, a., cf. 88, a, m.; PHILOP. cii. a; *Schol. in Ar.* 189, b, 12; *Anon. ibid.* l. 43, 190, a, 18, cf. PRANTL, 376 sq. These are syllogisms formed of propositions such as those mentioned by Aristotle, *Anal. Pr.* ii. 5, 58, a, 29, b, 10: ᾧ τὸ A μηδενὶ τὸ B παντὶ ὑπάρχει &c. According to ALEX. 128, a, *Schol.* 190, a, 1, however, Theophrastus expressly said that these differ from ordinary categorical propositions only in form; that he nevertheless entered with such minuteness into the discussion of them is only one of the many proofs of the frequently misspent industry with which he traversed every detail.

[3] Cf. PHILOP. *An. Pr.* lx. b; *Schol. in Ar.* 170, a, 30 sqq.; ALEX. *An. Pr.* 109, b, m. That both these writers in the passages named follow the Peripatetic view, as presented by Theophrastus and Eudemus, is obvious from the whole context.

[4] Οἱ τίνος ὄντος ἢ μὴ ὄντος τι οὐκ ἔστιν ἢ τί ἔστι δεικνύντες ('if A is, B is—if B is, C is—if A is, C is'), which are called by Theophrastus διὰ τριῶν ὑποθετικοὶ or δι' ὅλων ὑποθετικοὶ, as also on account of the similarity of the three propositions κατ' ἀναλογίαν. Theophrastus distinguished three forms of these syllogisms corresponding to the three Aristotelian figures of the categorical

and those which prove that something is or is not.[1] Of the latter a further division is made into those with a hypothetical and those with a disjunctive form,[2] both of which classes, however, agree in this—that what is stated in the major premise as possible is either affirmed or denied in the minor[3] Under the hypothetical are finally classed Comparative,[4] or, as the Peripatetics called them, Qualitative Syllogisms.[5]

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syllogism, except that he transposed the order of the second and third. ALEX. *Anal. Pr.* 109, b, m. 110, a.; cf. 88, b.; PHILOP. *ibid.* 170, a, 13 sqq. 179, a, 13 sqq. 189, a, 38.

[1] PHILOP. *Schol. in Ar.* 170, a, 14, 30 sqq. Cf. ALEX. *An. Pr.* 88, b.

[2] PHILOP. *ibid.*: τῶν τὸ εἶναι ἢ μὴ εἶναι κατασκευαζόντων ὑποθετικῶν οἱ μὲν ἀκολουθίαν κατασκευάζουσιν οἱ δὲ διάζευξιν &c. Of the first, two forms are next enumerated: those which by affirming the antecedent affirm the consequent, and those which by denying the consequent deny the antecedent ('If A is, B is. But A is,' &c.; and: 'If A is, B is. But B is not,' &c.). Of the second by a more complicated classification three forms: (1) 'A is not at the same time B and C and D. But it is B. Therefore it is neither C nor D.' (2) 'A is either B or C. But it is B. Therefore it is not C.' (3) 'A is either B or C. But it is not B. Therefore it is C.'

[3] This categorical minor premise following on a conditional or disjunctive major, for which the Stoics afterwards invented the name πρόσληψις, the older Peripatetics (οἱ ἀρχαῖοι, οἱ περὶ Ἀριστοτέλην, cf. PRANTL, 385, 68), following ARIST. (*Anal Pr.* i. 23, 41, a, 30; cf. WAITZ, *in loco*; c. 29, 45, b, 15), called μετάληψις (ALEX. *An. Pr.* 88, a, o. 109, a, m.; PHILOP. *Schol. in Ar.* 169, b, 47, 178, b, 6). If this minor itself receives proof from a categorical syllogism we have the so-called 'mixed syllogism' (ALEX. 87, b, m. sq.). The conditional sentence is called συνημμένον, the antecedent being the ἡγούμενον, the consequent the ἑπόμενον (PHILOP. *Schol. in Ar.* 169, b, 40). Theophrastus, however, remarked the difference here between those conditional sentences in which the condition is introduced problematically by an Εἰ and those in which it is introduced affirmatively by an Ἐπεὶ (SIMPL. *De Cœlo*, *Schol.* 509, a, 3). He remarked also (ALEX. *Anal. Pr.* 131, b. Ald.; cf. PRANTL, 378, 57) that the μετάληψις again is either a mere hypothesis, or immediately certain, or demonstrated either inductively or deductively.

[4] Οἱ ἀπὸ τοῦ μᾶλλον καὶ τοῦ ὁμοίου καὶ τοῦ ἧττον, *e.g.*: 'if the less precious is a good, so also is the more precious; but wealth, which is less precious than health, is a good, therefore health is so also.' Upon this see ALEX. *An. Pr.* 88, b, m. 109, a.—b.; PHILOP. *An. Pr.* lxxiv. b; PRANTL, 389 sqq.

[5] Κατὰ ποιότητα, probably fol-

No contributions of any importance to the second main division of the *Analytics*—the doctrine of Demonstration—have come down to us from Theophrastus or Eudemus,[1] and we may therefore assume that neither of them differed in any important point from the conclusions of Aristotle on this subject. The same is in substance true of the *Topics*, to which Theophrastus had devoted several treatises.[2] It cannot be proved that he interpreted the subject-matter of the science differently from Aristotle;[3] nor do the isolated utterances on this head which have come to us from Theophrastus and Eudemus go beyond a few formal extensions of Aristotelian doctrines.[4]

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lowing ARIST. *An. Pr.* i. 29, 45, b, 16—where, however, this expression is not further explained.

[1] Even PRANTL (p. 392 sq.) has failed to find more than two statements referring to this subject: one in PHILOP. *An. Post.* 17, b.; *Schol. in Ar.* 205, a, 46, distinguishing between ᾗ αὐτὸ and καθ' αὑτό, the other the remark in the anonymous scholium, *ibid.* 240, a, 47, that definition is embraced under demonstration. Equally unimportant are the remarks on καθ' αὑτὸ in ALEX. *Qu. Nat.* i. 26, p. 82, Speng.; on definition in BOETH. *Interpr.* ii. 318, *Schol.* 110, a, 34; on definition and demonstration in *Eustrat. in Libr.* ii.; *Anal. Post.* 11, a, o.; *Schol.* 242, a, 17; cf. *ibid.* 240, a, 47: on the impossibility of proving contradictory propositions in ALEX. on *Metaph.* 1006, a, 14; SYRIAN. in *Metaph.* 872, b, 11 (from the treatise π. καταφάσεως): and the definition of ἀξίωμα in THEMIST. *Anal. Post.* 2, a; *Schol.* 199, b, 46.

[2] Cf. PRANTL, 350 sq. nn. 11–14.

[3] PRANTL, p. 352, infers it from the statement (AMMON. *De Interpr.* 53, a.; *Schol. in Ar.* 108, b, 27; *Anon. ibid.* 94, a, 16) that Theophrastus distinguished a twofold relation, one to the fact in regard to which the question is one of truth or falsehood, the other to the hearers; but the latter is here assigned not to dialectic but to poetry and rhetoric. The citation from the *Analytics* of EUDEMUS in ALEX. *Top.* 70, is also quite Aristotelian.

[4] Theophrastus distinguished between τόπος and παράγγελμα, understanding by the latter a rule which is general and indefinite, by the former one that is definite (ALEX. *Top.* 72; cf. 5, m. 68); of the topical heads, which Aristotle had enumerated (γένος and διαφορὰ, ὅρος, ἴδιον,

The conclusion to which we are so far led, namely, that Theophrastus is by no means inclined blindly to accept the Aristotelian doctrines, becomes still more obvious from the fragment on Metaphysics.[1] The difficulties (ἀπορίαι) suggested in this fragment are directed in great part to Aristotelian assumptions, but we are left wholly in the dark as to whether and in what way the author found the solution of them. Starting from the distinction between First Philosophy and Physics, Theophrastus here asks how their respective objects, the supersensible and the sensible, are related to one another; and after proving that there must be some common bond of union between them and that the supersensible must involve the sensible, he goes on to examine how this is possible.[2] The principles of Mathematics (to which Speusippus had assigned the highest place) are insufficient for the solution of the problem; we require a higher principle, and this we can find only in God.[3] God, therefore, must be the cause of motion in

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συμβεβηκὸς, ταὐτὸν) he placed ταὐτὸν, as well as διαφορὰ, under γένος (*ibid.* 25), and all others except συμβεβηκὸς under ὅρος (*ibid.* 31—this is all that we are told, but PRANTL, p. 395, seems to be wrong in his interpretation, cf. BRANDIS, iii. 279). He asserted—to pass over some still more unimportant remarks which are quoted by ALEX. on *Metaph.* 1021, a, 31, and *Top.* 15 (*Schol.* 277, b, 32) —that opposites do not fall under one and the same generic conception (see *sup.* vol. ii. 358, n. 2). Theophrastus's divison of γνῶμαι (GREGOR. CORINTH. *ad Hermog. de Meth.* vii. 1154, W.), Eudemus's division of questions (ALEX. *Top.* 38), and his classification of fallacies παρὰ τὴν λέξιν (that is if GALEN. π. τ. παρὰ τ. λέξ. σοφισμ. 3. xiv. 589 sqq. follows him), will be found in PRANTL, 397 sq.

[1] See *supra*, vol. ii. p. 354, n. 2.

[2] § 1 sqq.; § 2 read ἀρχὴ δὲ, πότερα, &c., 'we begin here with the question whether,' &c.

[3] § 3 sq. according to USENER'S emendation (see p. 354, n. 2, *supra*) of which WIMMER, p. 151, 11, ventured to accept even οἷά τε

the world. He produces that motion, however, not in virtue of any movement in himself, but of a causality more accordant with his nature: he is the object of desire to all the lower creation, and this alone is the cause of the endless movement of the heavens. Satisfactory though this view undoubtedly seemed in many respects,[1] it was not without its difficulties. If there be only one moving principle, why have not all the spheres the same movement? If there are several, how can we explain the harmony of their movements? But a satisfactory reason must also be assigned for the multiplicity of the spheres, and, in fine, everything must be explained as the outcome of design. Why, moreover, should this natural desire of the spheres be directed to motion rather than to rest? And does not desire presuppose a soul, and therefore motion?[2] Why do not things under the moon as well

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for *ὥστε*; § 4 we might propose to read: *ἐν ὀλίγοις εἶναι καὶ πρώτοις, εἰ μὴ ἄρα καὶ ἐν τῷ πρώτῳ.*

[1] § 6: *μέχρι μὲν δὴ τούτων οἷον ἄρτιος ὁ λόγος, ἀρχήν τε ποιῶν μίαν πάντων, καὶ τὴν ἐνέργειαν καὶ τὴν οὐσίαν ἀποδιδοὺς, ἔτι δὲ μὴ διαιρετὸν μηδὲ ποσόν τι λέγων, ἀλλ' ἁπλῶς ἐξαίρων εἰς κρείττω τινὰ μερίδα καὶ θειοτέραν.* That everything has a natural desire for the good is also stated by Theoph. in the fr. (from *περὶ πλούτου*) *Schol. in Plat. Legg.* p. 449, 8 Bekk.: *εἰ ζωὴν εἶχεν ὁ πλοῦτος, πρὸς μόνους ἂν ἀπῆλθε τοὺς ἀγαθούς. ἕκαστον γὰρ τοῦ οἰκείου ἐφίεται ἀγαθοῦ,* for this alone accords with its nature, *πάντα δὲ τῆς κατὰ φύσιν ὀρέγεται διαθέσεως.*

[2] § 7 sq. (where l. 12 W for *ἀνήνυτον* we should perhaps read *ἄριστον*). In § 8 the remark relating to the Platonists (*τί οὖν ἅμα τῇ μιμήσει,* &c.) is hardly intelligible, probably on account of the corruption of the text. The sense ascribed to it by Brandis, iii. 328 sq. (q.v.), seems to be neither contained in the text nor admissible in itself. In the following words (*εἰ δὴ ἔφεσις, ἄλλως τε καὶ τοῦ ἀρίστου, μετὰ ψυχῆς, εἰ μή τις λέγοι καθ' ὁμοιότητα καὶ διαφορὰν, ἔμψυχ' ἂν εἴη τὰ κινούμενα*) Usener, p. 267, in place of *διαφορὰν* happily reads *μεταφορὰν*: 'unless the expression *ἔφεσις* is used by a mere analogy and improperly.' Even the fragment quoted in the previous note speaks only of living things.

as things above it desire the best? And how is it that in the heavenly sphere this desire produces nothing higher than rotation? For the movements of the soul and the reason are of a higher order than this. To this, however, it might be replied that all things cannot attain to like perfection. Finally we might ask whether motion and desire are essential or merely accidental attributes of the heavens.[1] Touching further on the necessity of deducing not only some but all reality from first principles,[2] we find that even in reference to these first principles themselves many new questions are suggested. Are they formless and material, or endowed with form, or both? And if the first of these assumptions is obviously inadmissible, there is also a difficulty in attributing design to everything however insignificant. We should therefore have to determine how far order extends in the world and why it ceases at certain points.[3] Again, what are we to say of rest? Has it, like motion, to be deduced as something real from our first principles, or does positive reality belong only to energy—among sensible objects only to motion—and is rest only a cessation of motion?[4] How, again, are we to describe the relation of Form and Matter? Is matter non-existent although endowed with potential reality, or is it an existence although still void of any definite form?[1] Why is the whole universe divided into contraries so that there is nothing without its opposite? Why does the worse far exceed in quantity the better?[2] And since on account of this diversity in things knowledge also is of different kinds, the question rises what method we are to adopt in each case and how we are to define the nature and the kinds of knowledge.[3] To assign causes to everything is impossible, for we cannot go on *ad infinitum* either in the sensible or the supersensible world without renouncing the possibility of knowledge; but we can go a little way in that direction in advancing from the sensible to the supersensible. When, however, we reach ultimate grounds of reality we can go no further, either because these have themselves no cause or because our eyes are too weak to penetrate into the brightest light.[4] But if it be thought that the mind knows these by immediate contact and therefore infallibly,[5] yet it is not easy, however necessary, to say what it is of which we make this assertion and which is the object of this immediate knowledge.[6] Granted, further, that the world and the structure of the heavens is eternal[1] and that we cannot, therefore, point to the causes of its origin, the problem yet remains of assigning the moving causes and the final aim of the constitution of the world, and of explaining individual forms of existence, down to animals and plants. Astronomy as such is inadequate to meet the former of those demands; since motion is just as essential to the heavens as life is to living creatures, we must seek a deeper origin for it in the essence and ultimate cause of the heavens themselves.[2] Upon the question of design in the world it is not always clear, apart from other considerations,[3] whether a thing exists for a definite end or only in consequence of a chance coincidence or natural necessity;[4] and even assuming design in the world, we are yet unable to prove its presence equally in every case, but must admit that there is much

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[1] § 9–11. In § 10 instead of *συμβαίνει* USENER reads *λαμβάνει*; it would be better to read: *συμβαίνει γὰρ εἶναι κ. συμβ.*

[2] § 11–13 where, however, p. 153, W. n. we must punctuate thus: *ἀπὸ δ' οὖν ταύτης ἢ τούτων τῶν ἀρχῶν ἀξιώσειεν ἄν τις, τάχα δὲ καὶ ἀπὸ τῶν ἄλλων ἄρ', ἄν τις τιθῆται, τὰ ἐφεξῆς εὐθὺς ἀποδιδόναι καὶ μὴ μέχρι του προελθόντα παύεσθαι*—as the Platonists are accused in the sequel of doing.

[3] § 14 sqq.; § 15 n.—where instead of *αὐτὸ* we ought to read *αὖ τό.*

[4] This apparently is the sense of the first half of § 16: what follows, however, as it stands, is, as BRANDIS, p. 332, says, unintelligible.

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[1] § 17. Instead of δυνάμει δ' ἓν (Br.) or δυνάμει μὲν ὂν (W.) we ought probably to read δυνάμει δ' ὄν.

[2] § 18.

[3] §§ 19-20. We cannot here enter into particulars; see, however, BRANDIS, iii. 334 sq. USENER, *ibid.* p. 269 sq. places c. 8 Br. (§§ 19-27 W.) between cc. 3 and 4 Br. (§§ 13 and 14 W.)

[4] The latter is a deviation from Aristotle's doctrine (on which cf. *supra*, vol. i. p. 205, n. 2, and p. 246 sqq.) in the same direction as the statement *Metaph.* ii. (α) 1. 993. b. 9: ὥσπερ γὰρ καὶ τὰ τῶν νυκτερίδων ὄμματα πρὸς τὸ φέγγος ἔχει τὸ μεθ' ἡμέραν, οὕτω καὶ τῆς ἡμετέρας ψυχῆς ὁ νοῦς πρὸς τὰ τῇ φύσει φανερώτατα πάντων.

[5] For Aristotle's view see *sup.* vol. i. p. 197, n. 4.

[6] So we should understand the words § 26: χαλεπὴ δὲ καὶ εἰς αὐτὸ τοῦθ' ἡ σύνεσις καὶ ἡ πίστις . . . . ἐν

τίνι ποιητέον τὸν ὅρον. BRANDIS, p. 336, explains: 'where we are to place a limit on inquiry,' which the text does not seem to permit. For the rest see §§ 24 sq.

[1] § 26 *fin.* must be read: *πέφυκεν· ὅσοι δὲ τὸν οὐρανὸν ἀΐδιον ὑπολαμβάνουσιν ἔτι δὲ*, &c. SPENGEL (see BRANDIS, p. 337) had already changed the unmeaning *ἡμέρων* into *ἢ μερῶν*.

[2] This at any rate seems to be the meaning of § 27 sq. (*εἰ οὖν ἀστρολογία*, &c.)

[3] These are indicated § 28. USENER, *Anal. Theophr.* 48, here proposes: *ἄλλως θ' ὁ ἀφορισμὸς οὐ ῥᾴδιος . . . . καὶ δὴ τῷ ἔνια μὴ δοκεῖν*, &c. In that case '*πόθεν τ' ἄρξασθαι χρή*' may be suggested instead of (*ῥᾴδιος . . . .*) *πόθεν δ' ἄρξασθαι χρῆν.* Otherwise one might, still reading *ἄλλως*, omit the *μάτην* which precedes as an explanatory gloss: *ὑπὲρ δὲ τοῦ πάνθ' ἕνεκά του καὶ μηθὲν ἄλλως, ὁ ἀφορισμὸς οὐ ῥᾴδιος*, &c. *'Αφορισμὸς* here is equivalent to *ὁρισμὸς*, as in the passage from THEOPHRASTUS in SIMPL. *Phys.* 94, a.

[4] Theophr. gives examples §§ 29 sq. where, however, § 30 instead of *τούτων χάριν* we must read with USENER (*Rhein. Mus.* xvi. 278) *τοῦ χάριν*. In what follows, it seems that the words *καὶ ταῦτ'*, &c. are somewhat out of order.

that seems to oppose its realisation and even that the amount of this is largely in excess of that which clearly exhibits design—in other words, that 'evil' is largely in excess over 'good.'[1]

It is impossible from so mutilated a fragment to obtain any very exact information as to the views of Theophrastus upon the ultimate grounds of reality. We only see from it that he was not blind to the difficulties of the Aristotelian doctrine, and that he brought these into prominence especially in connection with the question of the relation between the *movens* and the *motum* and with the teleological view of nature. We must nevertheless admit that even in his *Metaphysics* he has kept closely to the main lines of the Master's doctrine, as is obvious from his own express statements on several important heads,[2] and from the general fact that we nowhere hear of any deviations from it. Even what little has come down to us of Theophrastus's theological views harmonises in every respect with the doctrines of Aristotle. It is indeed urged against him that he declares God at one time to be Spirit, at another Heaven and the Stars;[1] but the same objection is urged against Aristotle,[2] whose view we must have wholly misunderstood if we do not find an easy explanation of it in the fact that while he identifies God

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[1] §§ 28–34. In § 31 read: εἰ δὲ μὴ τοῦθ' [or ταῦθ'] ἕνεκά του καὶ εἰς τὸ ἄριστον, ληπτέον, and immediately after: καὶ ἁπλῶς λεγόμενα (Br. and W. λέγομεν ἃ) καὶ καθ' ἕκαστον. In what follows ἐπὶ τῶν ζῴων will then correspond to καθ' ἕκαστον. In § 32 we ought perhaps to read: ἀκαριαῖον τὸ βέλτιον καὶ τὸ εἶναι . . . . πολὺ δὲ πλῆθος (without ᾖ or εἶναι) τὸ κακόν. In what follows the text may have originally been: οὐκ ἐν ἀοριστίᾳ δὲ μόνον καὶ οἷον ὕλης εἴδει, καθάπερ τὰ τῆς φύσεως (in the world of men—for the allusion must be to this—there is not only, as in nature, indeterminateness and materiality, but also evil). After this, however, there seems to be a gap; and of the missing words ἀμαθεστάτου alone has survived. Similarly in the following passage to the protasis εἰ γὰρ—ἑκατέρωθεν (*Ph. d. Gr.* i. 852, 3, where, however USENER'S conjecture, *ibid.* 280, τὰ δ' ἀθρόα καὶ ἑκατέρωθεν ought to have been mentioned) an apodosis is needed: this (the rarity of goodness) is even truer of Man. Of the next passage we have only a fragment in the words τὰ μὲν οὖν—ὄντα. The remainder is probably complete or nearly complete; the discussion, however, then breaks suddenly off and we are left without means of conjecturing its further course. In § 33 USENER'S conjecture (*ibid.*) ἐπιμιμεῖσθαι τὸ θεῖον ἅπαντα (for ἐπιμ. γε θέλειν ἅπ.) has much to support it.

[2] Besides the theological doctrines hereafter to be discussed we may note the distinc-

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tion between form and matter (*Metaph.* 17, THEMIST. *De An.* 91, a, m) with all that it involves, and the Aristotelian teleology. The latter Theophr. expresses in Aristotelian phraseology, *Caus. Pl.* i. 1, 1 (cf. ii. 1, 1): *ἡ γὰρ φύσις οὐδὲν ποιεῖ μάτην ἥκιστα δὲ ἐν τοῖς πρώτοις καὶ κυριωτάτοις.* *Ibid.* i. 16, 11 (where moreover we must read '*η δ'*' in place of *ἡ δ'*): *ἀεὶ πρὸς τὸ βέλτιστον ὁρμᾷ* [*ἡ φύσις*]. Cf. iv. 4, 2; 1, 2. Art, again, is partly an imitation (*Caus.* ii. 18, 2), partly a support and completion (*ibid.* ii. 16, 5, i. 16, 10 sq. v. 1, 1) of the designs of nature; it differs, however (*Caus.* i. 16, 10, cf. *sup.* vol. i. p. 418, n. 3), from nature in that the latter operates from within outwards, and therefore spontaneously (*ἐκ τῶν αὐτομάτων*), while it works from without by force, and therefore only piecemeal (*Caus.* i. 12, 4); hence it is that art produces much that is unnatural (*ibid.* i. 16, 11, v. 1, 1 sq.). Even this is not without a purpose, but it serves not the original design of nature but certain ends of man (cf. v. 1, 1); these two, however, do not coincide and may even contradict one another (*Caus.* i. 16, 1; 21, 1 sq. iv. 4, 1—Theophr. here distinguishes in reference to fruits and their ripeness *τὴν τελειότητα τήν τε πρὸς ἡμᾶς καὶ τὴν πρὸς γένεσιν. ἡ μὲν γὰρ πρὸς τροφὴν ἡ δὲ πρὸς δύναμιν τοῦ γεννᾷν*). Nevertheless even the unnatural can by habit change its nature (*Caus.* ii. 5, 5, iii. 8, 4, iv. 11, 5, 7); and on the other hand many vegetables and animals are, Theophr. believes, entrusted by nature herself to the care of man, whereby only they can reach perfection, and just herein consists the difference between wild and tame (*Caus.* i. 16, 23) which, as we shall find hereafter, he regards as not merely an artificial but a natural distinction.

[1] The Epicurean in CIC. *N. D.* i. 13, 35: *nec vero Theophrasti inconstantia ferenda est; modo enim menti divinæ tribuit principatum, modo cælo, tum autem signis sideribusque cælestibus.* CLEMENS, *Protrept.* c. 5, 44, B: *Θεόφρ. . . . . πῇ μὲν οὐρανὸν πῇ δὲ πνεῦμα τὸν θεὸν ὑπονοεῖ.*

[2] CIC. *ibid.* § 33, cf. KRISCHE, *Forsch.* 276 sqq.

in the highest sense with infinite spirit alone, he yet conceives of the motive forces in the stellar spheres, and especially in the highest of them, as eternal and divine beings. Theophrastus holds this view also. To him also God in an absolute sense is pure reason,[1] the single cause which co-ordinates all reality, and which, itself unmoved, produces motion in everything else, since everything else desires it.[2] In proof of this assumption Theophrastus had appealed, it appears, like Aristotle,[3] to the universality of religious beliefs.[4] He also described its universal operation as Providence,[5] without, however, distinguishing this divine causality from the ordinary course of nature,[6] and he demanded of man that he should imitate its ceaseless intellectual activity.[1] At the same time he follows Aristotle[2] in also attributing a soul to the heavens,[3] whose higher nature reveals itself in its orderly motion;[4] and since he is likewise in agreement with the Aristotelian doctrine of the æther as the material of the heavenly structure[5] and of the eternity of the world,[6] he could attribute blessedness or divinity not only to the highest Heaven, of which it is expressly asserted,[7] but also with equal right to the

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[1] *Metaph.* § 16: *ἔστι δὲ [τὸ κινοῦν ἕτερον καὶ ὃ κινεῖ] ἂν τις ἐπ' αὐτὸν ἄγῃ τὸν νοῦν καὶ τὸν θεόν.*

[2] *Ibid.* § 4 sq. (see *supra*), where *inter alia*: *θεία γὰρ ἡ πάντων ἀρχὴ δι' ἧς ἅπαντα καὶ ἔστι καὶ διαμένει . . . . ἐπεὶ δ' ἀκίνητος καθ' αὑτὴν, φανερὸν ὡς οὐκ ἂν εἴη τῷ κινεῖσθαι τοῖς τῆς φύσεως αἰτία, ἀλλὰ λοιπὸν ἄλλῃ τινὶ δυνάμει κρείττονι καὶ προτέρᾳ. τοιαύτη δ' ἡ τοῦ ὀρεκτοῦ φύσις, ἀφ' ἧς ἡ κυκλικὴ* [sc. *κίνησις*, which Usener *ibid.* p. 263 wishes to supply] *ἡ συνεχὴς καὶ ἄπαυστος.*

[3] On which cf. *sup.* vol. i. p. 390.

[4] We may at least infer this from the fact that in Porph. *De Abst.* ii. 7 sq. (see also Bernays, *Theophr. üb. Frömm.* 56 sq.) he treats the neglect of all worship as an exceptional outrage, on account of which the Thracian Thoans were destroyed by the gods; probably the same people of whom Simpl. in Epict. *Enchir.* 38. iv. 357 Schweigh. says: *πάντες γὰρ ἄνθρωποι . . . . νομίζουσι εἶναι θεὸν πλὴν Ἀκροθοϊτῶν, οὓς ἱστορεῖ Θεόφραστος ἀθέους γενομένους ὑπὸ τῆς γῆς ἀθρόως καταποθῆναι.*

[5] Minuc. Fel. *Octav.* 19, 11: *Theophrastus et Zenon, &c. . . . ad unitatem providentiæ omnes revolvuntur.* Cf. Procl. *in Tim.* 138, e: *ἢ γὰρ μόνος ἢ μάλιστα Πλάτων τῇ ἀπὸ τοῦ προνοοῦντος αἰτίᾳ κατεχρήσατο, φησὶν ὁ Θεόφρ.*

[6] As is seen from Alex. Aphr., who says at the end of his treatise *De Anima*: *φανερώτατα δὲ Θεόφραστος δείκνυσι ταὐτὸν ὂν τὸ καθ' εἱμαρμένην τῷ κατὰ φύσιν ἐν τῷ Καλλισθένει*—for *εἱμαρμένη* indicates the course of the world as divinely appointed, which therefore Theophr. according to his manner identified with the order of nature, as he identified the lot which God has appointed to each individual with a man's natural state. Cf. Stob. *Ecl.* i. 206: *φέρεται δέ πως εἰς τὸ εἱμαρμένην*

εἶναι τὴν ἑκάστου φύσιν· ἐν ᾗ τόπον τεττάρων αἰτιῶν ποικίλων, προαιρέσεως [φύσεως HEEREN and others], τύχης καὶ ἀνάγκης. As regards the two last, τύχη means accident, ἀνάγκη constraint (either of other men or of natural necessity) as distinguished from φύσις or nature acting with a purpose.—From the allusions to Theophr.'s views upon Providence in Olympiodorus *in Phæd.* ed. Finckh, p. 169, 7 nothing can be inferred.

[1] JULIAN, *Orat.* vi. 185, a Spanh.: ἀλλὰ καὶ Πυθαγόρας οἵ τε ἀπ' ἐκείνου μέχρι Θεοφράστου τὸ κατὰ δύναμιν ὁμοιῶσθαι θεῷ φασι. Plato especially expresses himself to this effect; how far it was the view also of Theophr. is seen from the note: καὶ γὰρ καὶ ὁ 'Αριστοτέλης· 'ὃ γὰρ ἡμεῖς ποτὲ, τοῦτο ὁ θεὸς ἀεί' (see *supra*). According to Diog. v. 49 Theophr. wrote a treatise against the Academics on the blessedness of God.

[2] See *supra*, vol. i. p. 495, n. 4.

[3] Procl. *in Tim.* 177, a: Theophrastus deems it unnecessary to base the existence of the soul, as the cause of motion, upon higher principles, as Plato had done. ἔμψυχον γὰρ καὶ αὐτὸς εἶναι δίδωσι τὸν οὐρανὸν καὶ διὰ τοῦτο θεῖον· εἰ γὰρ θεῖός ἐστι, φησὶ, καὶ τὴν ἀρίστην ἔχει διαγωγὴν, ἔμψυχός ἐστιν· οὐδὲν γὰρ τίμιον ἄνευ ψυχῆς, ὡς ἐν τῷ περὶ Οὐρανοῦ γέγραφεν. (See also on the last head p. 281, b. *Plat. Theol.* i. 12, p. 35 Hamb.)

[4] Upon this see *Metaph.* § 34. CIC. *Tusc.* i. 19, 45: *hæc enim pulchritudo etiam in terris patriam illam et avitam (ut ait Theophrastus) philosophiam cognitionis cupiditate incensam excitavit* refers to the beauty of the heavens. By πάτριος καὶ παλαιὰ φιλοσοφία is meant, as the context also shows, knowledge of the heavens, or astronomy.

[5] According to TAURUS (*Scholiast to Timæus*, *Bekker's Scholia* p. 437 and PHILOP. *Ætern.* m. xiii. 15), Theophr. rejected Aristotle's doctrine of the aether on the ground of Plato's assertion (*Tim.* 31 B) that all that is solid and visible must consist of fire and earth.

[6] On this see *infra*, p. 380.

[7] See n. 2 and the quotation from Aristotle *sup.* vol. i. p. 474.

other heavenly spheres.[1] Between him and Aristotle there is in this regard no difference of doctrine.

Theophrastus, however, devoted much more attention to scientific than to metaphysical inquiries, and had indeed much more talent for them. That here also he continued to build upon the foundations laid by Aristotle is beyond question; but we find him exerting himself not only to supplement the results of his teacher by further observation, but also to correct them by re-examination of his scientific conceptions. With this view he instituted an inquiry in a work of his own [2] into the conception of Motion which lay at the root of the Aristotelian doctrine of Nature;[3] and he found it necessary to deviate in some respects from the teaching of Aristotle on this head. He asserted, for instance, that Motion, which he agreed with Aristotle in defining as the realisation of potentiality,[4] may be predicated in all the categories; as change is not confined, as Aristotle tried to prove,[1] to substance, size, quality, locality, but is also applicable to relation, position, &c.[2] Again, Aristotle had asserted that all change takes place gradually, and therefore that everything which changes must be divisible;[3] Theophrastus maintained, on the contrary, the possibility—which Aristotle himself elsewhere[4] admits

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[1] As Theophr. according to the passage quoted, *sup.* vol. i. p. 461, 3 accepted Aristotle's theory of spheres, he was obliged to presuppose also with Aristotle an eternal mover for each sphere—an hypothesis which was forced upon him also by the principles of the Peripatetic philosophy with respect to mover and moved.

[2] The three books π. κινήσεως. On these and on the eight books of the *Physics* (if there were really so many) see PHILIPPSON, Ὕλη ἀνθρ. p. 84, USENER, *Anal. Theophr.* 5, 8, and BRANDIS, iii. 281. The last rightly remarks, as ROSE, *Arist. libr. ord.* 87 had already done, that the 'eleventh' book π. κινήσεως and the 'fourteenth' of the Physics in SIMPL. *Phys.* 23, a, and *Categ.* 100, β (*Schol.* 331, a, 10, 92, b, 23) have arisen out of mere clerical errors (τῷ ια′ and τῷ ιδ′ out of ΤΩΙ Α). From ἑνδεκάτῳ in the former passage came next δεκάτῳ in the Aldine text.

[3] Theophrastus also says that physics have to do only with the *motum* (see *sup* vol. i. p. 417 sq.); see *supra*, vol. ii. p. 357, n. 1.

[4] ἐνέργεια τοῦ δυνάμει κινητοῦ ᾗ κινητὸν κατὰ γένος ἕκαστον τῶν κατηγοριῶν—ἡ τοῦ δυνάμει ὄντος ᾗ τοιοῦτον ἐντελέχεια—ἐνέργειά τις ἀτελὴς τοῦ δυνάμει ὄντος ᾗ τοιοῦτον καθ' ἕκαστον γένος τῶν κατηγοριῶν (THEOPHR. Fr. 19 sq. 23 b, SIMPL. *Phys.* 201, b, 94, a, m. *Categ. ibid.*) ἀτελὴς γὰρ ἡ κίνησις (TH.

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apud THEMIST. *De An.* p. 199, 20 Sp.). It is plain from the quotation, *sup.* vol. i. p. 383, n. 1, that this completely agrees with Aristotle. Nor is it easy to see in SIMPL. *Categ.* 77, ε. *Phys.* 202, a, the deviation from Aristotle which RITTER (iii. 413 sq.) finds. The first passage (Fr. 24) runs: *τούτῳ μὲν γὰρ* (Theophrastus) *δυκεῖ μὴ χωρίζεσθαι τὴν κίνησιν τῆς ἐνεργείας, εἶναι δὲ τὴν μὲν κίνησιν καὶ ἐνέργειαν ὡς ἂν ἐν αὐτῇ περιεχομένην, οὐκέτι μέντοι καὶ τὴν ἐνέργειαν κίνησιν· τὴν γὰρ ἑκάστου οὐσίαν καὶ τὸ οἰκεῖον εἶδος ἐνέργειαν εἶναι ἑκάστου μὴ οὖσαν ταύτην κίνησιν.* This means, however: every motion is an energy, but every energy is not a motion; energy is the wider, motion the narrower conception. It is almost the opposite, therefore, to RITTER'S explanation: that he refuses to comprehend either the conception of energy under that of motion 'or the conception of motion under the conception of energy.' *Phys.* 202, a, SIMPL. says: *ὁ Θεόφραστος ζητεῖν δεῖν φησι περὶ τῶν κινήσεων εἰ αἱ μὲν κινήσεις εἰσὶν, αἱ δὲ ὥσπερ ἐνέργειαί τινες*, which he cites, however, only as proof that Theophr. uses *κίνησις* not merely of motion in space, but of any change. In this more general sense he may have understood particularly the 'motion of the soul' (see *infra*). Aristotle also, however, frequently uses *κίνησις* synonymously with *μεταβολὴ*, and even he calls motion energy as well as entelechy (see *sup.* vol. i. p. 383, n. 1): while, on the other hand, Theophr. as well as Aristotle says that it is only an incomplete energy. According to Priscian (in his paraphrase of the *Physics* bk. v. p. 287, *Theophr. Opp.* ed. Wimm. iii. 269) he says expressly: *ταῦτα δὲ* [*ἐνέργεια* and *κίνησις*] *διαφέρει· χρῆσθαι δὲ ἀναγκαῖον ἐνίοτε τοῖς αὐτοῖς ὀνόμασιν.*

[1] See *supra*, vol. i. p. 423, n. 1.

[2] THEOPHR. Fr. 19, 20, 23 (cf. *sup.* vol. ii. p. 373, n. 4). The remark in Fr. 20 on the motion of relation is obscure, and in the words: *ἡ γὰρ ἐνέργεια κίνησίς τε καὶ καθ' αὑτὸ* the text is probably corrupt. Perhaps we ought to read: *ἡ γὰρ ἐνεργείᾳ κίνησις τοῦ καθ' αὑτό.* But even so the passage is not quite clear.

[3] *Phys.* vi. 4 *init.* (see *supra*, vol. i. p. 439, n. 3), cf. c. 10.

[4] *Phys.* i. 3, 186, a, 13, and in the discussions upon light see *supra*, vol. i. p. 518, n. 3.

—of a simultaneous change in all parts of a mass.[1] Aristotle finally, in connection with the same subject, had assumed that, although there is a moment at which a change is completed, there is none at which it begins;[2] Theophrastus rightly held this to be inconceivable.[3] He further took serious exception to Aristotle's doctrine of space.[4] If space is the limit set by the surrounding to the surrounded body, the latter must be a plain surface; space would move, along with the surrounding body, which is inconceivable; nor would every body be in space, since the outermost circle would not be; moreover, all that is in space would cease to be so, without, however, itself suffering any change, if the surrounding body coalesced with it in one whole or were wholly removed.[5] Theophrastus was himself inclined to define space as the order and position of bodies relatively to one another.[1] Of less importance are some other statements quoted from the portions of his *Physics* which dealt with more general questions.[2] In his treatise upon the elements[3] to which the extant passage upon fire belongs, while holding fast to Aristotelian principles,[4] he nevertheless finds certain difficulties. While all other elements are themselves definite materials, fire (whether we take it to include light or not) only exists in materials which burn and give light; how then can it be treated as an elementary substance? This can only be the case if we assume that in a higher region[5] heat is pure and unmixed, whereas upon earth it is only found in union with something else and in a process of becoming; but in this case we must again ask whether terrestrial fire springs from the heavenly element or owes its origin to certain states and movements in burning material.[1] Again, how are we to explain the sun? If it consists of a kind of fire, this must be very different from other fire; if it does not consist of fire, we should then have to explain how it can kindle fire. In any case we should have to admit that not only fire but also heat are properties. But how is it possible to admit this with regard to heat, which is a far more universal and elementary principle than fire? This suggests further questions. Are heat, cold, &c. really first principles and not merely attributes?[2] Are the so-called simple bodies not rather composite things? since even moisture cannot be without fire, for if it were it would freeze; nor can the earth be wholly without moisture, for if it were it would fall to pieces.[3] We are not, however, justified in ascribing to Theophrastus on account of these criticisms an actual departure from the Aristotelian doctrine.[4] He is only following his general custom of pointing out the difficulties which his Master's view involves, without necessarily giving it up.

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[1] THEMIST. *Phys.* vi. 4, p. 381, 23 sqq. c. 5, 389, 8 sqq. Cf. SIMPL. *Phys.* 233, a, m (Fr. 54 sqq.). On the other hand the citation from Theophrastus in SIMPL. *Phys.* 23, a, is not directed against Aristotle, but is in agreement with him against Melinus.

[2] See *supra*, vol. i. p. 439, n. 4.

[3] SIMPL. *Phys.* 230, a, m. THEMIST. *Phys.* p. 386, 16 Sp. (*Schol.* 410, b, 44, 411, a, 6). Cf. Eudemus in SIMPL. 231, b (Fr. 67 Sp.).

[4] In respect to time, on the other hand, he wholly agreed with Aristotle; SIMPL. *Phys.* 187, a, m. cf. *Categ. Schol. in Ar.* 79, b, 25; controverting apparently, like Eudemus (according to SIMPL. *Phys.* 165, a, and b, Fr. 46 Sp.), Plato's views upon time.

[5] Fr. 21, b, SIMPL. *Phys.* 141, a, m.; Theophrastus objects in the *Physics* to Aristotle's definition of space, ὅτι τὸ σῶμα ἔσται ἐν ἐπιφανείᾳ, ὅτι κινούμενος ἔσται ὁ τόπος [but according to SIMPL. *Phys.* 131, b, 136, a. 141, b, 143, a, Theophrastus and Eudemus treated it as an axiom that space is immobile, as Aristotle also had done, see *sup.* vol. i. p. 432 sq. *Phys.* iv. 4, 212, a, 18 sqq.], ὅτι οὐ πᾶν σῶμα ἐν τόπῳ (οὐδὲ γὰρ ἡ ἀπλανὴς), ὅτι, ἐὰν συναχθῶσιν αἱ σφαῖραι, καὶ ὅλος ὁ οὐρανὸς οὐκ ἔσται ἐν τόπῳ [cf. ARIST. *Phys* iv. 4, 211, a, 29], ὅτι τὰ ἐν τόπῳ ὄντα, μηδὲν αὐτὰ μετακινηθέντα, ἐὰν ἀφαιρεθῇ τὰ περιέχοντα αὐτὰ, οὐκέτ ἔσται ἐν τόπῳ.

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[1] SIMPL. *ibid.* 149, b, m. (Fr. 22): Theophrastus says, though only as a suggestion (ὡς ἐν ἀπορίᾳ προάγων τὸν λόγον): 'μήποτε οὐκ ἔστι καθ' αὑτὸν οὐσία τις ὁ τόπος, ἀλλὰ τῇ τάξει καὶ θέσει τῶν σωμάτων λέγεται κατὰ τὰς φύσεις καὶ δυνάμεις, ὁμοίως δ' ἐπὶ ζῴων καὶ φυτῶν καὶ ὅλως τῶν ἀνομοιομερῶν, εἴτε ἐμψύχων εἴτε ἀψύχων, ἔμμορφον δὲ τὴν φύσιν ἐχόντων· καὶ γὰρ τούτων τάξις τις καὶ θέσις τῶν μερῶν ἐστι πρὸς τὴν ὅλην οὐσίαν· διὸ καὶ ἕκαστον ἐν τῇ αὑτοῦ χώρᾳ λέγεται τῷ ἔχειν τὴν οἰκείαν τάξιν, ἐπεὶ καὶ τῶν τοῦ σώματος μερῶν ἕκαστον ἐπιποθήσειεν ἂν καὶ ἀπαιτήσειε τὴν ἑαυτοῦ χώραν καὶ θέσιν.'

[2] At the beginning of his treatise he had illustrated the beginning of Aristotle's with the remark that all natural existences have their principles as all natural bodies are composite (SIMPL. *Phys.* 2, b, 5, b, m. *Schol. in Ar.* 324, a, 22, 325, b, 15. PHILOP. *Phys.* A, 2, m.); in the third book, which was also entitled π. οὐρανοῦ, he distinguishes three kinds of becoming: by means of something similar, something opposite, and something which is neither similar nor opposite to that which comes to be but only in general a previous actuality (Fr. 16, b, SIMPL. *ibid.* 287, a).

[3] According to Alex. in SIMPL. *De Cœlo*, *init.*, *Schol.* 468, a, 11, Theophrastus had discussed these in the treatise π. οὐρανοῦ, which however (*ibid.* 435, b, 33, and previous note) is the same as *Physics*, Bk. iii. SIMPL. *De Cœlo*, 517, a, 31, however, cites also a special work by him, περὶ τῆς τῶν στοιχείων γενέσεως (USENER, *Anal.* 21, thinks perhaps the same as Diog., v. 39, calls π. γενέσεως).

[4] The composition of the elements of heat, cold, &c. (see *sup.* vol. i. p. 478 sqq.; to this account, *e.g. De Igne*, 26: τὸ γὰρ πῦρ θερμὸν καὶ ξηρόν refers). Similarly the theory of the natural weight and levity of bodies; cf. *De Vent.* 22, *De Sensu*, 88 sq.

[5] ἐν αὐτῇ τῇ πρώτῃ σφαίρᾳ, by

It is the less necessary to follow Theophrastus

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which, however, only the first elemental sphere can be meant.

[1] *De Igne*, 3–5. Cf. also OLYMPIODORUS in *Meteorol.* i. 137, *id.*

[2] *Ibid.* 5–7, where § 6 with the words: *ἐν ὑποκειμένῳ τινὶ καὶ τὸ πῦρ καὶ ὁ ἥλιος τὸ θερμόν* we must supply *ἔχει*.

[3] *Ibid.* 8: *φαίνεται γὰρ οὕτω λαμβάνουσι τὸ θερμὸν καὶ τὸ ψυχρὸν ὥσπερ πάθη τινῶν εἶναι, οὐκ ἀρχαὶ καὶ δυνάμεις· ἅμα δὲ καὶ ἡ τῶν ἁπλῶν λεγομένων φύσις μικτή τε καὶ ἐνυπάρχουσα ἀλλήλοις* &c.

[4] Aristotle also says that the elements do not present themselves separately in actuality; see *supra*, vol. i. p. 482, n. 4.

further in his discussion of fire, inasmuch as, in spite of many true observations, he not unfrequently proceeds upon false assumptions and fails to bring to the elucidation of the facts any actual knowledge of the processes of combustion.[1] Nor need we enter into his account of wind[2] (the cause of which he traces to the motion of the sun and warm vapours[3]), of the origin of rain,[4] of the signs of the weather,[5] of stones,[6] of smells,[7] tastes,[8] light,[1] colours,[2] sounds.[3] His view of the structure of

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[1] Thus, for the explanation of several actual or supposed phenomena, we have such assumptions as that the smaller fire (as also ARIST. supposes, *Gen. et Corr.* i. 7, 323, b, 8) is consumed by the greater, or that it is suppressed and suffocated by the density of the air (Fr. 3, 10 sq. 58; Fr. 10, 1 sq); that a cold environment increases the interior heat by repulsion (ἀντιπερίστασις) (*ibid.* 13, 15, 18, 74, π. ἱδρώτ. 23, π. λειποψυχ. Fr. 10, 6; *Caus. Pl.* i. 12, 3, vi. 18, 11, and *passim*; cf. the Index under ἀντιπερίστασις, ἀντιπεριΐστασθαι. PLUT. *Qu. Nat.* 13, p. 915) and the like. Hence also the statement (in SIMPL. *De Cœlo*, 268, a, 27; *K. Schol.* 513, a, 28) that there have been cases of sparks darting from men's eyes.

[2] Π. ἀνέμων (Fr. 5). In § 5 of this work mention is also made of that π. ὑδάτων (cf. DIOG. v. 45; USENER, *Anal. Theophr.* 7).

[3] *Ibid.* §§ 19 sq. ALEX. in *Meteorol.* 100, b; cf. *sup.* vol. i. p. 514 sq. Theophrastus had spoken more fully on this subject in an earlier treatise—*De Vent.* 1.

[4] On this see OLYMPIODORUS on *Meteorol.* i. 222 *id.*

[5] Π. σημείων ὑδάτων καὶ πνευμάτων καὶ χειμώνων καὶ εὐδιῶν (Fr. 6).

[6] Π. λίθων (Fr. 2), according to § 59 written during the Archonship of Praxibulus (Ol. 116, 2, 315 B.C.) At the beginning of this essay the treatise on Metals, on which cf. USENER, p. 6, and *supra*, vol. i. p. 84, n. 1, is mentioned. THEOPHR. (*ibid.*) makes stones consist of earth, metals of water, herein (see *sup.* vol. i. p. 514) connecting his doctrine with that of Aristotle, whom he follows in general in the treatment of this subject (see SCHNEIDER'S references in his *Commentar*, iv. 535 sqq. and *passim*), except that he goes much more deeply into particulars than Aristotle did in the corresponding section of the *Meteorology* (iii. 6).

[7] On smells and tastes cf. *Caus. Pl.* vi. 1–5 (on those of plants, the rest of the book); on smells alone: περὶ ὀσμῶν (Fr. 4). Theophrastus here treats of the kinds of smells which do not permit of such sharp separation as the kinds of tastes, and next with great fullness of particular fragrant or offensive substances, their mixture, &c. Cf. also PLUT. *Qu. Conv.* i. 6, 1, 4.

[8] On these also he had written

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a special treatise, according to DIOG. v. 46, in five books (cf. USENER, p. 8, and *sup.* vol. i. p. 84, n. 1); *Caus. Pl.* vi. 1, 2, 4, 1, he enumerates seven chief tastes with an obvious reminiscence of ARIST. *De Sensu*, 4, 442, a, 19 (see *sup.* vol. i. p. 85). *Ibid.* c. 1, 1 he gives a definition of *χυμός*, which agrees with that of Aristotle (see *sup.* vol. i. p. 518). OLYMPIOD. in *Meteorol.* i. 286 *id.* mentions an assumption with reference to the briny taste of sea water (that it comes from the nature of the bottom of the sea).

[1] Theophrastus had explained his theory on this subject in the fifth book of the *Physics*, of which fragments have been preserved to us in PRISCIAN'S *Paraphrase* (see PHILIPPSON, Ὕλη ἀνθρωπίνη, pp. 241 sqq.; WIMMER, *Theophr. Opp.* iii. 232 sqq.). On light and transparency cf. § 16 sqq. The διαφανὲς is, according to the view here presented, which agrees with Aristotle's (see *sup.* vol. i. p. 518, n. 3), not a body but a property or state of certain bodies, and when light is called the ἐνέργεια τοῦ διαφανοῦς (§ 18), ἐνέργεια must be understood in the wider sense of a πάθημα or certain change in the transparent. The idea that light is a material emanation is rejected.

[2] All that can be obtained on this subject from the works of Theophrastus (to which, however, the pseudo Aristotelian treatise on Colours does not belong; cf. *supra*, vol ii. p. 355, n. 2) is almost entirely in agreement with Aristotle, and it is brought together by PRANTL, *Arist. üb. d. Farben*, 181 sqq. Fr. 89, 3, 6 also belongs to this group.

[3] Theophr. had discussed these in the treatise upon Music. In the fragment of this treatise which Porphyry has preserved (Fr. 89) in *Ptol. Harm.* (WALLISH, *Opp.* iii. 241 sqq.) he controverts the assumption that the difference between higher and lower notes is merely a numerical one. We cannot assert that the higher note either consists of more parts or moves more swiftly (*πλείους ἀριθμοὺς κινεῖται* § 3, which according to § 5 *fin.* seems to refer to the greater swiftness of motion by means of which in the same time it traverses a greater number of equal spaces) than the lower (the former was Heraclides', the latter Plato's and Aristotle's assumption; see *Ph. d. Gr.* i. 887, 1, 655 n. and *sup.* vol. i. p. 519). For in the first place if the essence of sound is number, then wherever we have number we must also have sound; on the other hand, if number is not the essence of sound, sounds are not distinguished by number only; in the second place observation shows that for a low note an equally strong movement is required as for a high one; and again the two could not accord with one another if they moved with unequal velocity or consisted of an unequal number of movements. If a higher note is audible at a greater distance, this is only because it is transmitted in a merely forward direction, whereas the deep note is transmitted in all directions.

the universe agrees in every respect with Aristotle's.[1] He shares also his doctrine that the world is without beginning or end, defending it, *à propos* of Aristotle's physical theory, with great fullness and success against the founder of the Stoic school.[2] And since among

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He holds that intervals do not explain the difference in notes, they merely make the latter perceptible by omission of the intermediate notes. In their case much more than in that of colours a qualitative difference must be admitted. Wherein this difference, however, consists, Theophr. does not seem more precisely to have defined.

[1] We see this from the statement of Simplicius on the retrogressive spheres quoted *sup.* vol. i. p. 502, n. 1, and that of Pseudo-Alex. in *Metaph.* 678, 13 Bon. (807, b, 9 Br.) which agrees with it. The remark Fr. 171 (π. τῶν Ἰχθύων) 6 that the air is nearer the fire than is the water refers to Aristotle's assumption that the elements lie round the earth in the form of a sphere. We need not believe that Theophr. held the Milky Way, as MACROB. *Somn. Scip.* i. 15 supposes, to be the band that unites the two hemispheres of which the celestial sphere is composed; he may have compared it with such a band, but the idea that the celestial sphere is really composed of two parts is inconsistent with Aristotle's doctrine that the world by reason of the nature of its materials can only have the form of a perfect sphere (see *sup.* vol. i. p. 486 sq.). It has already been remarked *sup.* vol. ii. p. 372, that Theophrastus follows Aristotle in his general view of the world.

[2] The extract from his treatise on this subject given in the pseudo-Philo has already been considered, *sup.* vol. ii. p. 354, n. 3. Theophr. here (c. 23 sqq. Bern.) controverts four arguments of his opponent and maintains against them (as is shown in ZELLER'S *Hermes*, xi. 424 sq.) c. 25, p. 270, 6 sqq. that in the first place their assertion that if the world were without beginning all unevenness in the earth's surface must long ago have been levelled, overlooks the fact that the fire in the earth which originally heaved up the mountains (cf. on this Theophr. F. 2, 3) also keeps them up; and in the second place if from the retreat of the sea which has taken place at particular places, a final exhaustion of it and an absorption of all elements in fire are inferred, this overlooks the fact that that decrease (as Aristotle had previously taught, see *sup.* vol. ii. p. 30, n. 2) is a merely local one and is counterbalanced by an increase at other places; just as little in the third place does it follow from the transitoriness of all particular parts of the world, that the world as a whole is transitory, inasmuch as the destruction of one thing is always the birth of another (cf. on this *sup.* vol. i. p. 485). If finally

other presuppositions of the Peripatetic system the eternity of the human race was involved in the eternity of the world,[1] while on the other hand the relatively recent origin of civilisation was recognised by Theophrastus and illustrated by researches into the origin of the arts upon which it depends[2] and of religious rites,[3] he assumed with his Master that there occurred from time to time overwhelming natural disasters which, covering vast territories, either totally annihilated the inhabitants or reduced them again to the primeval state of barbarism.[4] The mistake, in fact, which Aristotle made in assuming with the old astronomy that in the eternity of the universe is involved also that of the earth and the human race,[5] reveals itself again in Theophrastus.

Striking proof of Theophrastus's ability in the field of natural history is afforded by his two works upon

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man and therefore also the world is said to have had a beginning, because the arts without which man cannot live have had one, Theophr. opposes to this view the theory developed in the text.

[1] Cf. *sup.* vol. ii. p. 32, n. 1.

[2] DIOG. v. 47 mentions two books by him π. εὑρημάτων.

[3] See more on this subject, *infra*.

[4] It is not permissible, says the pseudo-Philo, c. 27, p. 274, 3 sqq. Bern., to judge the antiquity of man from that of the arts. For φθοραὶ τῶν κατὰ γῆν οὐκ ἀθρόων ἁπάντων ἀλλὰ τῶν πλείστων δυσὶ ταῖς μεγίσταις αἰτίαις ἀνατίθενται, πυρὸς καὶ ὕδατος ἀλέκτοις φοραῖς. κατασκήπτειν δ' ἑκατέραν ἐν μέρει φασὶν ἐν πάνυ μακραῖς ἐνιαυτῶν περιόδοις: and after further explaining how both kinds of devastation occur, and how the inhabitants of the mountains are swept away by the one, those of the valleys and plains by the other, he proceeds: κατὰ δὴ τοὺς λεχθέντας τρόπους δίχα μυρίων ἄλλων βραχυτέρων φθειρομένου τοῦ πλείστου μέρους ἀνθρώπων ἐπιλιπεῖν ἐξ ἀνάγκης καὶ τὰς τέχνας . . . ἐπειδὰν δὲ αἱ μὲν κοιναὶ νόσοι χαλάσωσιν, ἄρξηται δὲ ἀνηβᾷν καὶ βλαστάνειν τὸ γένος ἐκ τῶν μὴ προκαταληφθέντων τοῖς ἐπιβρίσασι δεινοῖς, ἄρχεσθαι καὶ τὰς τέχνας πάλιν συνίστασθαι, οὐ τὸ πρῶτον γενομένας, ἀλλὰ τῇ μειώσει τῶν ἐχόντων ὑποσπανισθείσας.

[5] Cf. on this *Phil.-histor. Abhandl. der Berl. Akademie*, 1878, pp. 105 sq.

plants.[1] Observations are there collected with the most unwearied diligence from all regions of the world accessible at that time. All the information attainable by the insufficient means and methods at the disposal of the investigator of the period, not only upon the form and parts, but also upon the development, the cultivation, the use, and the geographical distribution of a large number of plants,[2] is there set down. His statements are moreover in general so reliable, and where they rest on the testimony of others so cautious, that they give us the most favourable impression of his power of observation and critical skill. Neither ancient nor mediæval times have any botanical work of equal importance to compare with the writings of Theophrastus. The scientific explanation of the facts, however, was necessarily in the highest degree unsatisfactory, since neither botany nor science in general was as yet adequate to this task. Aristotle was able in his geological works to compensate in some degree for the like defect both by the general grandeur of his fundamental thoughts and in particular by a multitude of brilliant conjectures and startling observations; but Theophrastus cannot be compared with his Master in either of these respects.

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[1] According to KIRCHNER, *Die Botan. Schrift. d. Th.* (*Jahrb. f. Philol. Supplementb.* vii.) p. 497, he names 550 plants, and of these there are about 170 with regard to which we do not know whether they had been previously known. As, however, he omits several with regard to which it can be proved that they were known before his time, we cannot assume that he intended to enumerate all that were known to him.

[2] Cf. what BRANDIS, iii. 298 sqq., KIRCHNER, 499 sqq., have collected from the writings of Theophrastus on the sources and compass of his botanical knowledge.

The fundamental ideas of his botanical theory are taken from Aristotle.[1] Plants are living creatures.[2] Theophrastus does not make express mention of a soul in them; he regards their natural heat and moisture as the seat of their life,[3] finding in these also the chief ground of the individual peculiarities by which they are differentiated from one another.[4] But in order that they may germinate and grow, a suitable external environment is indispensable.[5] Their progress and perfection, their improvement or deterioration depend, therefore, in this respect, primarily upon the heat and moisture of the air and the ground and on the effects of sun and rain.[1] The more harmonious the relation in which all these factors stand to one another and to the plant, the more favourable are they to its development,[2] which is therefore conditioned partly by outward influences and partly by the peculiar nature of the plant or the seed, in reference to the latter of which we must again distinguish between the active force and the passive susceptibility to impressions from without.[3] This physical explanation does not, of course, with Theophrastus any more than with Aristotle exclude the teleological, which he finds both in the peculiar perfection of the plant itself and in its usefulness for man, without, however, going deeper into this side of the question or developing it in relation to the rest of his botanical theory.[4]

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[1] KIRCHNER, *ibid.* 514 sqq. gives us a comparison of Theophrastus's botanical theory with Aristotle's so far as we know it.

[2] Ζῶντα, *Caus* i. 4, 5, v. 5, 2; 18, 2; ἔμβια, *ibid.* v. 4, 5; they have not ἔθη [ἤθη] and πράξεις, like the animals, but they have βίους, *Hist.* i. 1, 1.

[3] *Hist.* i. 2, 4: ἅπαν γὰρ φυτὸν ἔχει τινὰ ὑγρότητα καὶ θερμότητα σύμφυτον ὥσπερ καὶ ζῷον, ὧν ὑπολειπόντων γίνεται γῆρας καὶ φθίσις, τελείως δὲ ὑπολιπόντων θάνατος καὶ αὔανσις. Cf. 11, 3; *Caus.* i. 1, 3: for germination there is required ἔμβιος ὑγρότης and σύμφυτον θερμὸν as well as a certain proportion between them. *Hist.* i. 11, 1: the seed contains the σύμφυτον ὑγρὸν καὶ θερμὸν, and if these escape, it loses the power of germination. See further *Caus.* ii. 6, 1 sq. 8, 3, and other passages.

[4] Cf. *Caus.* i. 10, 5. *Ibid.* c. 21, 3: τὰς ἰδίας ἑκάστων φύσεις εἴτ' οὖν ὑγρότητι καὶ ξηρότητι καὶ πυκνότητι [WIMMER's conjecture] καὶ μανότητι καὶ τοῖς τοιούτοις διαφερούσας εἴτε θερμότητι καὶ ψυχρότητι. The latter, however, he remarks, are difficult to measure: he accordingly exerts himself here and in c. 22 to discover marks by means of which we may recognise the degrees of temperature in a plant, an endeavour in which, as we might suppose, he meets with very little success.

[5] *Caus.* ii. 3, 4: ἀεὶ γὰρ δεῖ λόγον τινὰ ἔχειν τὴν κρᾶσιν τῆς φύσεως πρὸς τὸ περιέχον. 7, 1: τὸ συγγενὲς τῆς φύσεως ἕκαστον ἄγει πρὸς τὸν οἰκεῖον [τόπον] . . . οἷον ἡ θερμότης καὶ ἡ ψυχρότης καὶ ἡ ξηρότης καὶ ἡ ὑγρότης· ζητεῖ γὰρ τὰ πρόσφορα κατὰ τὴν κρᾶσιν. c. 9, 6: ἡ γὰρ ἐπιθυμία πᾶσι τοῦ συγγενοῦς. The statement of BRANDIS (iii. 319) that the efficacy of heat, &c., is conditioned also by the opposite is not to be found either in *Caus.* ii. 9, 9, or anywhere else in Theophrastus, although he states in another connection, *Hist.* v. 9, 7, that passive and active must be heterogeneous.

The chief subjects discussed in the remaining portions of the two works upon plants are the parts, the origin and development, and the classification of plants.

In considering the first of these Theophrastus encounters the question whether annual growths such as leaves, blossoms, and fruit are to be regarded as parts of the plant or not. Without giving a definite answer to this question he inclines to the latter view,[5] and accordingly names as the essential external parts of the plant[1] the root, stem (or stalk), branches and twigs.[2] He shows how plants are differentiated by the presence or absence, the character, the size, and the position of these parts,[3] remarking that there is nothing which is found in all plants as invariably as mouth and belly are in animals, and that in view of the infinite variety of botanical forms we must frequently be content with mere analogy.[4] As 'internal parts'[5] he names bark, wood, pith, and as the 'constituent parts' of these again, sap, fibres, veins and pulp.[6] From these, which are permanent, he distinguishes finally the yearly changing elements, which, indeed, in many cases are the whole plant.[7] Here, however, as not unfrequently elsewhere, he takes the tree as the basis of his investigation; it seems to stand with him for the perfect plant, just as humanity stands with Aristotle for the perfect animal and man for the perfect type of humanity.

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[1] Cf. *Hist.* i. 7, 1; *Caus.* i. 21, 2 sqq. ii. 13, 5, iii. 4, 3; 22, 3, iv. 4, 9 sq. 13, and other passages. In the explanation of the phenomena themselves, Theophrastus indeed not unfrequently gets into difficulty, and rescues himself by assumptions such as that referred to *supra*, vol. ii. p. 378, n. 1, of the compression of internal heat by external cold.

[2] *Caus.* i. 10, 5; 6, 8, ii. 9, 13, iii. 4, 3, and *passim.*

[3] The δύναμις τοῦ ποιεῖν and τοῦ πάσχειν, *Caus.* iv. 1, 3.

[4] See *supra*, vol. ii. p. 369, n. 2.

[5] *Hist.* i. 1, 1–4.

In his treatment of the origin of plants, Theophrastus points out three distinct methods of propagating them, viz. from seed, from parts of other plants, and by spontaneous generation.[8] The most natural of these is from seed. All seed-bearing plants employ this method, even if individuals among them exhibit another as well. This law, acccording to Theophrastus, is not only obvious from observation, but follows still more clearly from the consideration that otherwise the seed of such plants would serve no purpose, in a system of nature where nothing, least of all anything so essential as the seed, is purposeless.[1] Theophrastus compares seed, as Empedocles had done, to eggs,[2] but he has no true conception of the fructification and sexual differences of plants. He often distinguishes, indeed, between male and female plants,[3] differing in this from Aristotle;[4] but when we inquire what he means by this, we find, in the first place, that this distinction refers always to plants as a whole and not to the organs of fructification in them, and can apply, therefore, only to the smallest portion of the vegetable kingdom; that, in the second place, it is applied by Theophrastus only to trees, and not even to all these; and, thirdly, that even here it rests not upon any actual knowledge of the process of fructification, but upon vague analogies of popular language.[5]

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[1] τὰ ἔξω μόρια (*ibid.*), the ἀνομοιομερῆ (*ibid.* 12, cf. *supra*, vol. i. p. 517, n. 6, and vol. ii. p. 28, n. 1.

[2] ῥίζα, καυλὸς, ἀκρεμὼν, κλάδος . . . ἔστι δὲ ῥίζα μὲν δι' οὗ τὴν τροφὴν ἐπάγεται [it depends on this, *i.e.* on the δύναμις φυσικὴ, not on the position in the ground, *Hist.* i. 6, 9] καυλὸς δὲ εἰς ὃ φέρεται. καυλὸν δὲ λέγω τὸ ὑπὲρ γῆς πεφυκὸς ἐφ' ἓν . . . ἀκρεμόνας δὲ τοὺς ἀπὸ τούτου σχιζομένους, οὓς ἔνιοι καλοῦσιν ὄζους. κλάδον δὲ τὸ βλάστημα τὸ ἐκ τούτων ἐφ' ἓν οἷον μάλιστα τὸ ἐπέτειον, *Hist.* i. 1, 9. Aristotle's view was not altogether identical; see *supra*, vol. ii. p. 35, n. 4.

[3] *Ibid.* 6 sqq.

[4] *Ibid.* 10 sqq.

[5] τὰ ἐντὸς, *ibid.*; τὰ ἐξ ὧν ταῦτα, ὁμοιομερῆ, *ibid.* 2, 1.

[6] *Hist.* i. 2, 1, 3. On the meaning of ἶς, φλὲψ, σὰρξ of plants, see MEYER, *Gesch. der Bot.* i. 160 sq.

[7] *Hist.* i. 2, 1 sq.

[8] Here he follows Aristotle; see *supra*, vol. ii. p. 36.

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[1] *Caus.* i. 1, 1 sq. 4, 1; *Hist.* ii. 1, 1, 3.

[2] *Caus.* i. 7, 1, cf. ZELLER, *Ph. d. Gr.* i. 717, 5. So also Aristotle, *Gen. An.* i. 23, 731, a, 4.

[3] See *supra*, vol. ii. p. 34, n. 1, and p. 48.

[4] See Index under ἄρρην and θῆλυς.

[5] It is clear from his whole mode of applying the distinction between male and female plants that Theophrastus was not the first to make it. It is plain that he found it already existing, and that it belongs in fact to the unscientific use of language. He nowhere gives a more exact definition of its significance or its basis; on the contrary, he frequently marks it as a customary division by the use of καλοῦσι or a similar expression (*e.g. Hist.* iii. 3, 7, 8, 1, 12, 6, 15, 3, 18, 5). The division in his text is limited to trees: trees, he says, are divided into male and female (*Hist.* i. 14, 5, iii. 8, 1; *Caus.* i. 22, 1, and *passim*); and nowhere does he

On the other hand, he instituted accurate observations upon the process of germination in some plants.[1] Among the different methods of propagating plants by slips, bulbs, &c., which Theophrastus minutely dis-

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call any other plant but a tree male or female; for although he says (*Hist.* iv. 11, 4) of a species of reed that in comparison with others it is *θῆλυς τῇ προσόψει*, this is quite different from a division into a male and female species. Theophrastus speaks also (*Caus.* vi. 15, 4) of an *ὀσμὴ θῆλυς*. Even trees, however, do not all fall under the above division; cf. *Hist.* i. 8, 2: *καὶ τὰ ἄρρενα δὲ τῶν θηλειῶν ὀζωδέστερα, ἐν οἷς ἐστιν ἄμφω.* This is enough to show that the division is not based on any correct conceptions as to the fructification of plants, and all that he further states concerning it proves how little value must be set upon it. The distinction between male and female trees is found to consist in the former being barren, or at any rate less fruitful than the latter (*Hist.* iii. 8, 1). The most general distinction between trees is that of male and female, *ὧν τὸ μὲν καρποφόρον τὸ δὲ ἄκαρπον ἐπὶ τινῶν. ἐν οἷς δὲ ἄμφω καρποφόρα, τὸ θῆλυ καλλικαρπότερον καὶ πολυκαρπότερον*: some, however, contrariwise call the latter kind of trees male. *Caus.* ii. 10, 1: *τὰ μὲν ἄκαρπα τὰ δὲ κάρπιμα τῶν ἀγρίων, ἃ δὴ θήλεα τὰ δ' ἄρρενα καλοῦσιν.* Cf. *Hist.* iii. 3, 7, c. 9, 1, 2, 4, 6, c. 10, 4, c. 12, 6, c. 15, 3, c. 18, 5; *Caus.* i. 22, 1, iv. 4, 2). Moreover, it is remarked that the male have more branches (*Hist.* i. 8, 2), and that their wood is harder, of closer tissue, and darker, while the female are more slender (*Hist.* iii. 9, 3, v. 4, 1; *Caus.* i. 8, 4). Only of the date tree does Theophrastus say that the fruit of the female ripens and does not fall off if the pollen of the male fall upon it, and he compares this with the shedding of the spawn by the male fish; but even in this he cannot see fructification in the proper sense, as the fruit is supposed to be already there; his explanation of the matter rather is that the fruit is warmed and dried by the pollen, and he compares the process with the caprification of figs (*Caus.* ii. 9, 15, iii. 18, 1; *Hist.* ii. 8, 4, 6, 6). He never supposes that all seed-formation depends upon fructification. In *Caus.* iii. 18, 1, he expressly rejects the idea which might have been founded upon this fact: *πρὸς τὸ τελειογονεῖν μὴ αὔταρκες εἶναι τὸ θῆλυ*, remarking that if it were so there would be not only one or two examples of it, but it would necessarily establish itself in all, or at any rate in most, cases. It is not surprising, therefore, that he says (*Caus.* iv. 4, 10) that in the case of plants the earth bears the same relation to the seed as the mother does in the case of animals.

[1] *Hist.* viii. 2, on grain, pulse, and some trees.

cusses,[1] he reckons grafting and budding, in which he says the stem serves as soil for the bud or the graft;[2] and, as a second method of a similar kind, the annual sprouting of plants.[3] In reference, finally, to spontaneous generation, Theophrastus indeed remarks that this is not unfrequently merely apparent, the seeds of many plants being so minute as to escape observation, or having been carried by winds, water and birds to places where we least expect to find them.[4] But that it does actually take place, especially in the case of smaller plants, he does not doubt,[5] and he explains it, like the spontaneous generation of animals, as the result of the decomposition of certain materials under the influence of terrestrial and solar heat.[6]

In classifying plants, Theophrastus arranges them under the four heads of trees, bushes, shrubs and herbs,[7] calling attention at the same time to the unsatisfactoriness of this classification.[8] He further distinguishes between garden and wild plants, fruit-bearing and barren, blossoming and non-blossoming, evergreen and deciduous; while admitting that these also are vanishing distinctions, he yet regards them as the common natural characteristics of certain classes.[1] He lays special stress, however, on the division into land and water plants.[2] In his own treatment of plants he follows the first main division, except that he classes trees and bushes together.[3] Into the further contents of his botanical writings, however, we cannot here enter.[4]

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[1] *Hist.* ii. 1 sq. *Caus.* i. 1–4 and *passim.* Also propagation by the so-called tears (δάκρυα), on which see *Caus* i. 4, 6, *Hist.* ii. 2, 1, and cf. MEYER, *Gesch. der Bot.* i. 168.

[2] *Caus.* i. 6.

[3] *Caus.* i. 10, 1, where this subject is further discussed.

[4] *Caus.* i. 5, 2–4, ii. 17, 5; *Hist.* iii. 1, 5.

[5] Cf. *Caus.* i. 1, 2, 5, 1. ii. 9, 14, iv. 4, 10. *Hist.* iii. 1, 4.

[6] *Caus.* i. 5, 5 ; cf. ii. 9, 6, 17, 5.

[7] *Hist.* i. 3, 1, with the further explanation : δένδρον μὲν οὖν ἐστι τὸ ἀπὸ ῥίζης μονοστέλεχες πολύκλαδον ὀζωτὸν οὐκ εὐαπόλυτον . . . θάμνος δὲ τὸ ἀπὸ ῥίζης πολύκλαδον . . . . φρύγανον δὲ τὸ ἀπὸ ῥίζης πολυστέλεχες καὶ πολύκλαδον . . . . πόα δὲ τὸ ἀπὸ ῥίζης φυλλοφόρον προϊὸν ἀστέλεχες οὗ ὁ καυλὸς σπερμοφόρος.

[8] *Ibid.* 2: δεῖ δὲ τοὺς ὅρους οὕτως ἀποδέχεσθαι καὶ λαμβάνειν ὡς τύπῳ καὶ ἐπὶ τὸ πᾶν λεγομένους· ἔνια γὰρ ἴσως ἐπαλλάττειν δόξειε, τὰ δὲ καὶ παρὰ τὴν ἀγωγὴν [by culture] ἀλλοιότερα γίνεσθαι καὶ ἐκβαίνειν τῆς φύσεως. And after explaining by examples and further enlarging upon this fact, that there are also bushes and herbs with the form of trees, and that we might thus be inclined to lay more stress upon the size, strength and durability of plants,

Of Theophrastus's work upon Zoology[5] hardly anything remains to us; nor does the information which we possess from other sources as to his zoological doctrines justify us in attributing to him more in this field

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he concludes again, § 5: *διὰ δὴ ταῦτα ὥσπερ λέγομεν οὐκ ἀκριβολογητέον τῷ ὅρῳ ἀλλὰ τῷ τύπῳ ληπτέον τοὺς ἀφορισμούς.*

[1] *Hist.* i. 3, 5 sq. and some further remarks c. 14, 3. In respect to the distinction between garden and wild plants especially he observes here and iii. 2, 1 sq. that this is a natural one, as some plants degenerate under cultivation, or at least do not improve; others, on the contrary (*Caus.* i. 16, 13), are designed for it.

[2] *Hist.* i. 4, 2 sq. 14, 3, iv, 6, 1; *Caus.* ii. 3, 5.

[3] Books ii.–v. of the *History of Plants* treat of trees and bushes, therefore of ligneous plants; book vi. of shrubs; books vii. viii. of herbs; book ix. discusses the sap and healing qualities of plants.

[4] BRANDIS, iii. 302 sqq., gives a review of the contents of both works; see also a shorter one in MEYER, *Gesch. der Bot.* i. 159 sqq.

[5] Seven books, which DIOG. v. 43 first enumerates singly by their particular titles, and then comprehends under the common title *π. ζῴων*. Single books are also cited by Athenæus among others; see USENER, p. 5. Theophrastus himself refers (*Caus. Pl.* ii. 17, 9, cf iv. 5, 7) to the *ἱστορίαι περὶ ζῴων*. He does not seem, however (if we may judge from the single titles in Diogenes), to have intended in this work to give a complete natural history, but only (as was his general plan where Aristotle had already laid down the essential principles) to supplement Aristotle's work by a minute treatment of particular points. To this work belong Fr. 171–190.

than an extension of Aristotle's labours by further observations and some isolated researches of minor value.[1]

His views upon the nature of life and of the human soul are of more importance.[2] Several of the fundamental conceptions of the Aristotelian doctrine are here called in question. Aristotle had described the soul as the unmoved principle of all movement, and had referred its apparent movements, in so far as they can properly be regarded as such, to the body.[1] Theophrastus held that this is true only of the lower activities of the soul: thought-activity, on the contrary, must, he thinks, be regarded as a movement of the soul.[2]

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[1] The citations from him relating to this, apart from isolated, and sometimes rather mythical, references to his natural history (*e.g.* Fr. 175 and the statement in PLUT. *Qu. conv.* vii. 2, 1), are limited to the following:—Animals occupy a higher stage than plants: they have not only life but also ἔθη [ἤθη] and πράξεις (*Hist.* i. 1, 1); they are related to man, not only in body, but also in soul (see *infra*, p. 394, n. 1). Their life proceeds in the first instance from a native, internal heat (Fr. 10 π. λειποψυχ. 2); at the same time they require a suitable (σύμμετρος) environment, air, food, &c. (*Caus. Pl.* ii. 3, 4 sq. iii. 17, 3); alterations of place and season produce in them certain changes (*Hist.* ii. 4, 4, *Caus.* ii. 13, 5, 16, 6). With Aristotle (see Chap. X. *supra*) Theophrastus emphasises the marks of design in their bodily organs as against the older physics: the physical organism is the instrument, not the cause of vital activity (*De Sensu*, 24). Here, however, Theophrastus does not, any more than Aristotle (see Ch. VII. *supra*), overlook the fact that even in the case of animals it is impossible to trace in every particular a definite design (Fr. 12, 29: see *supra*, vol. ii. p. 11, n. 2). A distinction is occasionally made between land- and water-animals (*Hist.* i. 4, 2, 14, 3. iv. 6, 1; *Caus.* ii. 3, 5); wild and tame (*Hist.* iii. 2, 2, *Caus.* i. 16, 13); on the latter distinction in *Hist.* i. 3, 6 he remarks that the measure of it is relation to man, ὁ γὰρ ἄνθρωπος ἢ μόνον ἢ μάλιστα ἥμερον. The use which the different animals are to one another Theophrastus had referred to in the *Natural History* (*Caus.* ii. 17; 9 cf. § 5). Concerning the origin of animals he also believes in spontaneous generation even in the case of eels, snakes and fish (*Caus.* i. 1, 2, 5, 5, ii. 9, 6, 17, 5; Fr. 171, 9, 11, 174, 1, 6; cf. PORPH. *De Abst.* ii. 5, according to which the first animals must have sprung from the earth, and the treatise π. τῶν αὐτομάτων ζῴων in DIOG. v. 46); their metamorphoses are mentioned in *Caus.* ii. 16, 7, iv. 5, 7. Respiration he conceives, with Aristotle, to serve the purpose of refrigeration: fish do not breathe, because the water performs this service for them (Fr. 171, 1, 3; cf. Fr. 10, 1). Lassitude is traced (Fr. 7, 1, 4, 6, 16) to a σύντηξις, a decomposition of certain constituents of the body (cf. the σύντηγμα, vol. ii. p. 51, n. 2, *sup.*); vertigo (Fr. 8, π. ἰλίγγων), to the irregular circulation of the humours in the head. Fr. 9, π. ἱδρώτων investigates the properties of perspiration and their conditions. Fainting is the result of the want or loss of vital heat in the respiratory organs (Fr. 10, π. λειποψυχίας); similarly palsy results from cold in the blood (Fr. 11, π. παραλύσεως).

[2] Theophr. had spoken of the soul in *Physics*, Bks. iv. and v., which according to THEMIST. *De*

An. 91 a, Spengel ii. p. 199, 11, were also entitled 'π. ψυχῆς.'

[1] See *supra*, Ch. XI.

[2] According to SIMPL. *Phys.* 225, a, he said in the first book π. *κινήσεως*: *ὅτι αἱ μὲν ὀρέξεις καὶ αἱ ἐπιθυμίαι καὶ ὀργαὶ σωματικαὶ κινήσεις εἰσὶ καὶ ἀπὸ τούτων ἀρχὴν ἔχουσιν, ὅσαι δὲ κρίσεις καὶ θεωρίαι, ταύτας οὐκ ἔστιν εἰς ἕτερον ἀγαγεῖν, ἀλλ' ἐν αὐτῇ τῇ ψυχῇ καὶ ἡ ἀρχὴ καὶ ἡ ἐνέργεια καὶ τὸ τέλος, εἰ δὲ δὴ καὶ ὁ νοῦς κρεῖττόν τι μέρος καὶ θειότερον ἅτε δὴ ἔξωθεν ἐπεισιὼν καὶ παντέλειος. καὶ τούτοις ἐπάγει· ὑπὲρ μὲν οὖν τούτων σκεπτέον εἴ τινα χωρισμὸν ἔχει πρὸς τὸν ὅρον, ἐπεὶ τό γε κινήσεις εἶναι καὶ ταύτας ὁμολογούμενον.* We know that Theophrastus also described music as *κίνησις ψυχῆς.* To him, also, RITTER, iii. 413, refers THEMIST. *De An.* 68 a, Sp. ii. p. 29 sq., where divers objections to Aristotle's criticism of the assumption that the soul moves, are cited from an unnamed writer who is described with the words *ὁ τῶν Ἀριστοτέλους ἐξεταστής.* THEMIST. 89 b. Sp. p. 189, 6, certainly says *Θεόφραστος ἐν οἷς ἐξετάζει τὰ Ἀριστοτέλους*: and Hermolaus Barbarus translates (according to Ritter) both passages *Theophrastus in iis libris in quibus tractat locos ab Aristotele ante tractatos.* But this very similarity makes it possible that Hermolaus merely transferred Theophrastus's name from the second passage to the first — a transference hardly justified by that passage itself. The statements of Themistius seem rather to refer to another, and indeed far later, writer than Theophrastus, *e.g.*, when he reproaches his anonymous opponent (68, a), with having apparently wholly forgotten Aristotle's views upon motion, *καίτοι σύνοψιν ἐκδεδωκὼς τῶν περὶ κινήσεως εἰρημένων Ἀριστοτέλει* (Theophrastus can hardly have written such a treatise — *ἐκδεδωκὼς* moreover points to an original work—nor was it necessary to appeal to this to prove that Aristotle's theory of motion might have been known to him); when he reports of him (68, b.): *ὁμολογῶν τὴν κίνησιν τῆς ψυχῆς οὐσίαν εἶναι καὶ φύσιν, διὰ τοῦτό φησιν, ὅσω ἂν μᾶλλον κινῆται τοσούτω μᾶλλον τῆς οὐσίας αὐτῆς ἐξίστασθαι*, &c. (this Theophrastus would certainly not have said); when he says to him with reference to this that he appears not to know the distinction of motion and energy. The general tone

Aristotle had spoken of a Passive Reason, declaring that only the capacity of knowledge is innate, and that this capacity can only develop gradually into actual knowledge;[1] but the development of that which is present at first only as a capacity—in other words, the realisation of possibility—is movement.[2] It is improbable that Theophrastus on this account defined the nature of the soul differently from Aristotle;[3] but on the other hand, he found serious difficulty in accepting his view of the relation between active and passive reason. The question, indeed, as to how reason can at once come from without and be innate, may be answered by assuming that it enters at the moment of birth. But a further difficulty arises: if it be true that reason is at first nothing actually, but everything only potentially, how does it accomplish that transition to actual thought and passion, which we must attribute to it in one sense or another, when it performs an act of thought? If it be said that it is impelled to think by external things, it is hard to understand how the incorporeal can be acted upon and altered by the corporeal. If it receives the impulse from itself—the only other alternative to im-

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of Themistius's argument conveys the impression that he is dealing with a contemporary.

[1] See *supra*, vol. ii. p. 96.

[2] See *supra*, vol. ii. p. 380, n. 1.

[3] JAMBLICHUS says, indeed, in STOB. *Ecl.* i. 870: ἕτεροι δὲ [sc. τῶν Ἀριστοτελικῶν] τελειότητα αὐτὴν ἀφορίζονται κατ᾽ οὐσίαν τοῦ θείου σώματος, ἣν [the τελειότης perhaps, not the θεῖον σῶμα] ἐντελέχειαν καλεῖ Ἀριστοτέλης, ὥσπερ δὴ ἐν ἐνίοις Θεόφραστος. But Aristotle had himself defined the soul as the entelechy of an organic body. Theophrastus, therefore, would have merely added that the first substratum of the soul, the θεῖον σῶμα, is the ether; which, however, he probably meant in the same sense in which Aristotle also (see *supra*, vol. ii. p. 6, n. 2) conceived of the soul as united to a substance like the ether.

pulse from the senses—then it is not passive at all. In any case this passivity must be of a different kind from passivity in general: it is not the mobilisation of that which has not yet reached completion, but it is a state of completion. If, moreover, matter is defined as that which exists only potentially, does not reason, conceived of as mere potentiality, become something material? If, finally, the distinction must be made in the case of reason, as elsewhere, between the efficient and the material cause, the question yet remains, how are we further to describe the nature of each? what are we to understand by the passive reason? and how is it that the active reason, if it is innate, does not act from the very first? if it is not innate, how does it afterwards originate?[1]

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[1] Theophrastus in THEMIST. *De An.* 91 a, Sp. 198, 13 sq. (the same in a rather poor and corrupt extract in PRISCIAN'S paraphrase, ii. 4, p. 365 sq. Wimm.): ὁ δὲ νοῦς πῶς ποτε ἔξωθεν ὢν καὶ ὥσπερ ἐπίθετος, ὅμως συμφυής; καὶ τίς ἡ φύσις αὐτοῦ; τὸ μὲν γὰρ μηδὲν εἶναι κατ' ἐνέργειαν, δυνάμει δὲ πάντα, καλῶς, ὥσπερ καὶ ἡ αἴσθησις. οὐ γὰρ οὕτω ληπτέον. ὡς οὐδὲ αὐτός· ἐριστικὸν γάρ· ἀλλ' ὡς ὑποκειμένην τινὰ δύναμιν, καθάπερ καὶ ἐπὶ τῶν ὑλικῶν [the above statement, that it is nothing κατ' ἐνέργειαν, must not be taken to mean that it is never present itself: rather is its presence as faculty presupposed by every exercise of reason]. ἀλλὰ τὸ ἔξωθεν ἄρα οὐχ ὡς ἐπίθετον, ἀλλ' ὡς ἐν τῇ πρώτῃ γενέσει συμπεριλαμβάνον [-βανόμενον] θετέον. πῶς δέ ποτε γίνεται τὰ νοητά; [how does reason become the object of thought? how does it unite itself with it? Aristotle had said of divine as well as of human thought that in its exercise it is the object of thought; see *supra*, vol. i. p. 197, n. 3, and p. 199] καὶ τί τὸ πάσχειν αὐτόν; δεῖ γὰρ [sc. πάσχειν], εἴπερ εἰς ἐνέργειαν ἥξει, ὥσπερ ἡ αἴσθησις· ἀσωμάτῳ δὲ ὑπὸ σώματος τί τὸ πάθος; ἢ ποία μεταβολή; καὶ πότερον ἀπ' ἐκείνου ἡ ἀρχὴ ἢ ἀπ' αὐτοῦ; τὸ μὲν γὰρ [for on the one hand] πάσχειν ἀπ' ἐκείνου δόξειεν ἂν [sc. ὁ νοῦς] (οὐδὲν γὰρ ἀφ' ἑαυτοῦ [sc. πάσχει] τῶν ἐν πάθει), τὸ δὲ ἀρχὴν [l. ἀρχὴ, as PRISCIAN also has] πάντων εἶναι καὶ ἐπ' αὐτῷ τὸ νοεῖν καὶ μὴ ὥσπερ ταῖς αἰσθήσεσιν ἀπ' αὐτοῦ [thought must lie in its own power, and not come to it from the object as sensation to the senses—αὐτοῦ must be referred to ἐκείνου; BRENTANO'S changes, *Psychol. d. Ar.* 219, are unnecessary], τάχα δ' ἂν φανείη καὶ τοῦτο ἄτοπον, εἰ ὁ νοῦς ὕλης

That Theophrastus nevertheless held fast by the Aristotelian doctrine of the twofold nature of reason is beyond dispute;[1] what we know of the way in which he silenced his doubts shows merely that he took the various terms, as applied to reason, in a different sense from that which they bear in other fields, holding that

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ἔχει φύσιν μηδὲν ὤν, ἅπαντα δὲ δυνατός. Themistius adds that Theophrastus continued these discussions in the fifth book of the *Physics*, and in the second on the Soul, and that they are μεστὰ πολλῶν μὲν ἀποριῶν, πολλῶν δὲ ἐπιστάσεων πολλῶν δὲ λύσεων. The result is, ὅτι καὶ περὶ τοῦ δυνάμει νοῦ σχεδὸν τὰ αὐτὰ διαποροῦσιν, εἴτε ἔξωθέν ἐστιν εἴτε συμφυὴς, καὶ διορίζειν πειρῶνται, πῶς μὲν ἔξωθεν πῶς δὲ συμφυής· λέγουσι δὲ καὶ αὐτὸν ἀπαθῆ καὶ χωριστὸν, ὥσπερ τὸν ποιητικὸν καὶ τὸν ἐνεργείᾳ· 'ἀπαθὴς' γάρ, φησιν, 'ὁ νοῦς, εἰ μὴ ἄρα ἄλλως παθητικός' [Priscian also has these words, but he also quotes, as an introduction to them, the remark that we cannot suppose reason to be wholly impassive: 'εἰ γὰρ ὅλως ἀπαθὴς,' φησὶν, οὐδὲν νοήσει]. καὶ ὅτι τὸ παθητικὸν ὑπ' [l. ἐπ'] αὐτοῦ οὐχ ὡς τὸ κινητικὸν ληπτέον, ἀτελὴς γὰρ ἡ κίνησις, ἀλλ' ὡς ἐνέργειαν. [So also Priscian.] καὶ προϊών φησι [following Aristotle, see *sup.*, vol. ii. p. 61, n. 3] τὰς μὲν αἰσθήσεις οὐκ ἄνευ σώματος, τὸν δὲ νοῦν χωριστόν. (διὸ, here adds Priscian, c. 9, p. 272 W., τῶν ἔξω προελθόντων [l. προσελθ.] οὐ δεῖται πρὸς τὴν τελείωσιν.) ἁψάμενος δὲ καὶ τῶν περὶ τοῦ ποιητικοῦ νοῦ διωρισμένων Ἀριστοτέλει, 'ἐκεῖνό, φησιν, ἐπισκεπτέον ὃ [perhaps ὅτι] δή φαμεν ἐν πάσῃ φύσει, τὸ μὲν ὡς ὕλην καὶ δυνάμει, τὸ δὲ αἴτιον καὶ ποιητικὸν, καὶ ὅτι ἀεὶ τιμιώτερον τὸ ποιοῦν τοῦ πάσχοντος καὶ ἡ ἀρχὴ τῆς ὕλης.' ταῦτα μὲν ἀποδέχεται, διαπορεῖ δὲ, τίνες οὖν αὗται αἱ δύο φύσεις, καὶ τί πάλιν τὸ ὑποκείμενον ἢ συνηρτημένον τῷ ποιητικῷ· μικτὸν γάρ πως ὁ νοῦς ἔκ τε τοῦ ποιητικοῦ καὶ τοῦ δυνάμει. εἰ μὲν οὖν σύμφυτος ὁ κινῶν, καὶ εὐθὺς ἐχρῆν καὶ ἀεὶ [sc. κινεῖν]. εἰ δὲ ὕστερον, μετὰ τίνος καὶ πῶς ἡ γένεσις; ἔοικεν οὖν καὶ ἀγέννητος, εἴπερ καὶ ἄφθαρτος. ἐνυπάρχων δ' οὖν, διὰ τί οὐκ ἀεί; ἢ διὰ τί λήθη καὶ ἀπάτη καὶ ψεῦδος; ἢ διὰ τὴν μίξιν; The last paragraph Themistius gives, 89 b, Sp., 189, 8, more literally, apparently, as follows: εἰ μὲν γὰρ ὡς ἕξις, φησὶν, ἡ δύναμις ἐκείνῳ [the νοῦς ποιητ.], εἰ μὲν σύμφυτος ἀεὶ, καὶ εὐθὺς ἐχρῆν· εἰ δ' ὕστερον &c. The development of the active reason from the potential is described also in the fragment in Priscian, c. 10, which has its place here, as the acquisition of a ἕξις (in the sense discussed, vol. i. p. 285, n. 3, *supra*). For the text in the above, besides Spengel and Brandis, iii. 288 sq., Torstrik, *Arist. de An.* 187 sq. and Brentano, *ibid.* 216 sqq. may be consulted.

[1] Cf. previous note and *supra*, vol. ii. p. 391, n. 2.

its evolution has no relation to the incorporeal, which is always present to it, but only to the corporeal, of which it furnishes the explanation.[1]

In the views to which we have just referred, and especially in attributing motion to the activity of the soul, Theophrastus shows an unmistakeable inclination to identify the spiritual element in man more closely with the physical. Similarly a statement has come down to us in which he asserts that the soul of man is of the same nature as that of animals, that it exhibits the same activities and states, and is only distinguished

[1] Even the intimations in THEMISTIUS take this turn. The passivity and potentiality of the reason is taken to be of another kind than that of corporeal existence; as independent of the body it does not require external impressions in order to reach completeness as active, but is self-evolved from *δύναμις* to *ἕξις*; error and forgetfulness are explained by its union with the body. On similar lines is the Theophrastean defence of the Aristotelian doctrine which PRISCIAN gives us (see ii. 17, p. 277, W.): *πάλιν δὲ ὑπομιμνήσκει φιλοσοφώτατα ὁ Θεόφρ. ὡς καὶ αὐτὸ τὸ εἶναι τὰ πράγματα τὸν νοῦν καὶ δυνάμει καὶ ἐνεργείᾳ ληπτέον οἰκείως· ἵνα μὴ ὡς ἐπὶ τῆς ὕλης κατὰ στέρησιν τὸ δυνάμει, ἢ κατὰ τὴν ἔξωθεν καὶ παθητικὴν τελείωσιν τὸ ἐνεργείᾳ ὑπονοήσωμεν· ἀλλὰ μηδὲ ὡς ἐπὶ τῆς αἰσθήσεως, ἔνθα διὰ τῆς τῶν αἰσθητηρίων κινήσεως ἡ τῶν λόγων γίνεται προβολὴ, καὶ αὕτη τῶν ἔξω κειμένων οὖσα θεωρητικὴ, ἀλλὰ νοερῶς ἐπὶ νοῦ καὶ τὸ δυνάμει καὶ τὸ ἐνεργείᾳ εἶναι τὰ πράγματα ληπτέον* . . . c. 20, p. 281, W.: *τοῦτο δὲ* [the previous citation from Aristotle] *διαρθρῶν ὁ Θ. ἐπάγει· ἀλλ' ὅταν γένηται καὶ νοηθῇ, δῆλον ὅτι ταῦτα ἕξει, τὰ δὲ νοητὰ ἀεὶ, εἴπερ ἡ ἐπιστήμη ἡ θεωρητικὴ ταὐτὸ τοῖς πράγμασιν· αὕτη δὲ ἡ κατ' ἐνέργειαν δηλονότι. κυριωτάτη γάρ.* [We must point in this way and take *αὕτη . . . γὰρ* as probably an explanation of Priscian.] *τῷ νῷ, φησὶ, τὰ μὲν νοητὰ, τουτέστι τὰ ἄϋλα, ἀεὶ ὑπάρχει· ἐπειδὴ κατ' οὐσίαν αὐτοῖς σύνεστι καὶ ἔστι[ν] ὅπερ τὰ νοητά· τὰ δὲ ἔνυλα, ὅταν νοηθῇ, καὶ αὐτὰ τῷ νῷ ὑπάρξει, οὐχ ὡς συστοίχως αὐτῷ νοηθησόμενα· οὐδέποτε γὰρ τὰ ἔνυλα τῷ νῷ ἀΰλῳ ὄντι· ἀλλ' ὅταν ὁ νοῦς τὰ ἐν αὐτῷ μὴ ὡς αὐτὰ μόνον ἀλλὰ καὶ ὡς αἴτια τῶν ἐνύλων γινώσκῃ, τότε καὶ τῷ νῷ ὑπάρξει τὰ ἔνυλα κατὰ τὴν αἰτίαν.* In making use of these passages it must not be forgotten that we have in them the words of Theophrastus only in the paraphrase of a Neoplatonic.

from it by a greater degree of perfection.[1] This, however, can only refer to the lower powers of the soul exclusive of reason.[2] The relation of the lower to the higher elements of the soul seems also to have offered insuperable difficulties to him; we know at least that in regard to the imagination he was in doubt whether it ought to be referred to the rational or the irrational part.[3] From what we know of his treatment of the doctrine of reason we may conjecture that he found this subject also full of difficulty.[4]

We have fuller details of Theophrastus's doctrine of the senses.[1] Here, however, he adopts Aristotle's conclusions without important modification.[2] The views of previous philosophers upon the senses and the objects of sense-perception are accurately presented and tested from the point of view of the Peripatetic doctrine.[3] Theophrastus himself explains sensation, with Aristotle, as a change in the organs of sense by means of which they become assimilated, not in matter but in form, to the object of perception.[4] This effect proceeds from the object.[5] In order that it may be produced it is necessary that the latter should stand to the organ of sense in a certain harmonious relation, the nature of which accordingly here forms an important subject of discussion;[6] it may not, however, be sought for either in the homogeneity or the heterogeneity of the constituent parts of its terms alone.[7] The operation of the object upon the senses is always mediated, according to Theophrastus, by a third term.[1] In developing his own doctrine, as in criticising his predecessors, he doubtless discussed each of the senses separately, but only a meagre report has here come down to us.[2] Like Aristotle, he distinguished the *sensus communis* from the other senses, but did not wholly agree with that philosopher's view of the way in which the universal qualities of matter are perceived.[3] He defends the veracity of sensation against the attacks of Democritus.[4]

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[1] PORPH. *De Abst.* iii. 25 (*apud* BERNAYS, *Theophr. über Frömmigk.* 97, 184; for the fragment there given belongs, as BERNAYS proves at p. 99, to this book and not to the π. ζῴων φρονήσεως): Θεόφραστος δὲ καὶ τοιούτῳ κέχρηται λόγῳ. τοὺς ἐκ τῶν αὐτῶν γεννηθέντας . . . . οἰκείους εἶναι φύσει φαμὲν ἀλλήλων. So also of people of the same race, even if they are not of the same descent: πάντας δὲ τοὺς ἀνθρώπους ἀλλήλοις φαμὲν οἰκείους τε καὶ συγγενεῖς εἶναι δυοῖν θάτερον, ἢ τῷ προγόνων εἶναι τῶν αὐτῶν, ἢ τῷ τροφῆς καὶ ἠθῶν καὶ ταὐτοῦ γένους κοινωνεῖν . . . . καὶ μὴν καὶ πᾶσι τοῖς ζῴοις αἵ τε τῶν σωμάτων ἀρχαὶ πεφύκασιν αἱ αὐταὶ [*i.e.* seed, flesh, &c.]. πολὺ δὲ μᾶλλον τῷ τὰς ἐν αὐτοῖς ψυχὰς ἀδιαφόρους πεφυκέναι, λέγω δὴ ταῖς ἐπιθυμίαις καὶ ταῖς ὀργαῖς, ἔτι δὲ τοῖς λογισμοῖς, καὶ μάλιστα πάντων ταῖς αἰσθήσεσιν. ἀλλ' ὥσπερ τὰ σώματα, καὶ τὰς ψυχὰς οὕτω τὸ μὲν ἀπηκριβωμένας ἔχει τῶν ζῴων, τὰ δὲ ἧττον τοιαύτας, πᾶσί γε μὴν αὐτοῖς αἱ αὐταὶ πεφύκασιν ἀρχαί. δηλοῖ δὲ ἡ τῶν παθῶν οἰκειότης. The rest concerns Porphyry, not Theophrastus.

[2] The λογισμοί, which with the beasts are different in perfection, are not in any very different position from the 'analoga' of νοῦς and φρόνησις, ascribed to the beasts by Aristotle (*supra*, vol. ii p. 27, n. 6, and p. 38, n. 2).

[3] SIMPL. *De An.* 80, a. As to the difference between phantasy and perception, see also PRISCIAN, c. 3, 6, 263, W.

[4] With this theory of the imagination was connected a question referred to by PRISCIAN (see PLOTIN. p. 565, ed. Didot, cf. BRANDIS, iii. 373). It is to be noted, however, that Priscian does not expressly name Theophrastus; and that the supposition that he is here referring to him is a conjecture of DÜBNER'S. The question is, why do we remember our dreams when we are awake, and forget our waking life in dreams? We do not get any clear answer from Priscian.

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[1] We can only notice in passing another anthropological inquiry: namely, the discussion on Melancholy, which is to be found in the Aristotelian *Problems* (xxx. 1, pp. 953–955), the Theophrastean origin of which (*i.e.* from the book π. Μελαγχολίας mentioned by DIOG. v. 44), ROSE, *De Arist. libr. ord.* 191 has detected by means of the reference therein (954, a, 20) to the book on Fire (§ 35, 40). The diverse effects which it was customary to attribute to the μέλαινα χολὴ are explained, with the aid of an analogy drawn from the effects of wine, by the theory that the μέλαινα χολὴ was of its own nature cold, but was capable of taking on a high degree of heat, and that accordingly it produced according to the surrounding circumstances, sometimes a condition of cold and weariness, and sometimes a heating and exciting effect.

[2] For which see p. 58 sqq. of vol. ii. *supra*.

[3] In the *De Sensu*, as to which see vol. ii. p. 354, n. 3.

[4] PRISCIAN, i. 1, p. 232, W: λέγει μὲν οὖν καὶ αὐτὸς, κατὰ τὰ εἴδη καὶ τοὺς λόγους ἄνευ τῆς ὕλης γίνεσθαι τὴν ἐξομοίωσιν. The theory of an ἀπορροὴ, *i.e.* an effluence from the object to the sense, is attacked in the *De Sensu*, 20, cf. *Caus. Pl.* vi. 5, 4. Compare the passages cited from Aristotle *supra*, vol. ii. p. 59 n. 2.

[5] PRISCIAN, i. 37, p. 254, W.

[6] *De Sensu*, 32, PRISC. i. 44, p. 258, W, *Caus. Pl.* vi. 2, 1, 5, 4.

[7] Both views are attacked by Theophrastus in the *De Sensu*,

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31; the first also *ibid.*, 19, and the second *apud* PRISC. i. 34, p. 252. Cf. *supra*, vol. i. p. 454 sq.

[1] Cf. *supra*, vol. i. p. 519 (on the *διηχὲς* and *δίοσμον*). PRISC. i. 16, 20, 30, 40, p. 241, 244, 250, 255; *Caus. Pl.* vi. 1, 1. Theophrastus here says, in agreement with Aristotle (*vide supra*, vol. ii. p. 64), that all sensations reach us through some medium, which is in the case of Touch our own flesh, and in the case of the other senses certain external substances: for Sight the transparent medium; for Hearing, the air; for Taste, water; for Smell, air and water together. He also considers that the immediate organs of sense-perception in the case of Sight, Hearing and Smell are formed out of water and air.

[2] Besides the passages already cited, we ought to mention here the observations (Fr. 4 *De Odor.* 4, *Caus. Pl.* vi. 5, 1 sq.; which follow Aristotle, as to whom see *supra*, vol. ii. p. 65, n. 3) that although Smell is in man the feeblest of the senses, yet he alone cares for a pleasant smell for its own sake, and that sensations of Hearing make the keenest impression on our emotions (PLUT. *De Audiendo*, 2, p. 38, a); and the account of eyes that send out fire (*apud* SIMPL. *De Cœlo*, Schol. 513, a, 28; with which the citations *supra*, vol. ii. p. 65, n. 1, should be compared); and the criticisms of the theory of Democritus (see ZELLER, *Ph. d. Gr.* i. p. 818) as to the existence of an image of any visible object in the air. Nevertheless THEOPHRASTUS himself said (*ap.* PRISCIAN, i. 33, p. 251, W) as to images in mirrors: *τῆς μορφῆς ὥσπερ ἀποτύπωσιν ἐν τῷ ἀέρι γίνεσθαι.*

[3] Aristotle had said (in the *De Anima*, iii. 1, 425, a, 16 sqq.) that size, form, &c. were perceived by means of motion; *ἄτοπον δὲ ὁ Θεόφρ. [φησὶν], εἰ τὴν μορφὴν τῇ κινήσει* (PRISC. i. 46, p. 259, W).

[4] In the *De Sensu*, 68 sq. (where, however, for the corrupt *χυμοῦ* in 68 we should read, not, with Schneider and Philippson, *χυλοῦ*, but rather *θερμοῦ*) he complains that Democritus treated weight, lightness, hardness and softness as things in themselves,

As a Peripatetic, Theophrastus of course asserted the freedom of the will.[1] In his treatise on voluntary action[2] he fully discussed this subject, and possibly took notice of the Stoic doctrine of determination that was just then rising into notice. But on this point, as on so many others in Aristotle's psychology which demanded further investigation, little is known of Theophrastus's contribution to science.

We have somewhat fuller information as to his ethical doctrines.[3] Here also he merely continued the

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and yet considered cold, heat, sweetness &c., as merely relative qualities of things. He argues that if these qualities depend on the form of the atoms—*e.g.* if warmth is said to consist in roundness of atoms—then such qualities must be in some sense objective. If they are supposed not to be objective because they do not appear alike to all men, then the same conclusion should follow as to all other qualities of things. Even as to such qualities as sweetness and bitterness, people are deceived only as to a particular case, and not as to the nature of sweets and bitters. Properties so essential as heat and cold, must be something belonging to the bodies that have them. Cf. on this the references *supra*, vol. i. p. 209. Epicurus defended the atomic view against Theophrastus (*ap.* Plutarch, *Adv. Col.* 7, 2, p 1110).

[1] Stob. *Ecl* i. 206: Θεόφρ. προσδιαιρεῖ (Mein. -αρθροῖ) ταῖς αἰτίαις τὴν προαίρεσιν. Pseudo-Plut. *V. Hom.* ii. 120, p. 1155.

[2] Π. ἑκουσίου α', Diog. v. 43.

[3] Diog. v. 42 sq. (with which cf. the further information in Usener, *Anal. Theophr.* 4 sq.) attributes to Theophrastus the following ethical works: § 42, π. βίων three books (if this work really treated of the different pursuits in life, *e.g.* the βίος θεωρητικὸς, πρακτικὸς, ἀπολαυστικὸς, &c. [cf. *supra*, vol. ii. p. 140, n. 2], and was not merely biographical); § 43, ἐρωτικὸς α' (Athen. xiii. 562, e. 467, b. 606, c), π. ἔρωτος α' (Strabo, x. 4, 12, p. 478), π. εὐδαιμονίας (Athen. xii. 543, xiii. 567, a; Bekker, *Anecd. Gr.* i. 104, 31; Cic. *Tusc.* v. 9, 24, cf. Ælian. *V. H.* ix. 11); § 44, π. ἡδονῆς ὡς Ἀριστοτέλης α', π. ἡδονῆς ἄλλο α' (Athen. xii. 526, d, 511, c; *ibid.* vi. 273, c. viii. 347, e, where he adds, however, that this work was also attributed to Chamæleon); Καλλισθένης ἢ π. πένθους (Alex. *De An.* fin., Cic. *Tusc.* v. 9, 25, iii. 10, 21); § 45, π. φιλίας 3 B. (Hieron. vi. 517, b, ed. Vallars.; Gell. *N. A.* i. 3, 10, viii. 6, and *infra*, p. 409 sq.), π. φιλοτιμίας 2 B. (Cic. *ad Att.* ii. 3 *ad fin.*); § 46, π. ψευδοῦς ἡδονῆς (Olympiodor. *Phileb.* 269); § 47, π. εὐτυχίας: ἠθικῶν σχολῶν α': ἠθικοὶ χαρακτῆρες (v. *infra*): π. κολακείας

work of Aristotle, his chief merit being the greater fullness with which he develops it in details. We can-

α′ (ATHEN. vi. 254, d): *ὁμιλητικὸς α′*: *π. ὅρκου α′*: *π. πλούτου α′* (ASPAS. in *Eth.* N. 51, and CIC. *Off.* ii. 16, 56). *προβλήματα πολιτικὰ ἠθικὰ φυσικὰ ἐρωτικὰ α′*; § 50, *π. εὐσεβείας* (*Schol. in Aristoph. Av.* 1354; as to BERNAYS' view *vide supra* ii. p. 355, n. 2), *π. παιδείας ἢ π. ἀρετῶν ἢ π. σωφροσύνης α′* (to this work the Fragm. *apud* STOB. *Floril.* iv. 216, No. 124, ed. Mein. might be referred). A work *π. παθῶν* not named by Diogenes is referred to by SIMPL. *Categ.* 69, δ. *Schol. in Ar.* 70, b, 3. Theophrastus, however, also wrote two larger ethical works, of which one may possibly be the *ἠθικαὶ σχολαὶ* of Diog., which must in that case have had more than *one* book. The two are referred to as Ἠθικὰ and π. Ἠθῶν. Out of '*Θεόφρ. ἐν τοῖς ἠθικοῖς*,' PLUT. *Pericl.* 38 quotes a story about Pericles. '*Ἐν τοῖς π. ἠθῶν*' Theophr. had, according to the Scholiast in CRAMER'S *Anecd. Paris.* i. 194, made mention of the avarice of Simonides, and according to ATHEN. xv. 673 e, a contemporary of this scholar named Adrantus wrote five books *περὶ τῶν παρὰ Θεοφράστῳ ἐν τοῖς περὶ ἠθῶν καθ' ἱστορίαν καὶ λέξιν ζητουμένων*, and a sixth book *περὶ τῶν ἐν τοῖς Ἠθικοῖς Νικομαχείοις Ἀριστοτέλους.* We must assume from this that this ethical treatise of Theophrastus was on a more comprehensive scale than Aristotle's, since it gave occasion for so much more voluminous an historical commentary; and we also gather expressly that it, like the *Nicomachean Ethics*, comprised several books. In fact, EUSTRAT. in *Eth.* N. 61, b, tells us, obviously from a well-informed source, that the verse *ἐν δὲ δικαιοσύνῃ*, &c. (ARIST. *Eth.* v. 2, 1129, b, 29) was ascribed by Theophrastus in the first book *π. Ἠθῶν* to Theognis, and in the first book of the Ἠθικὰ to Phocylides. From one of these works, or perhaps from both, the sketches of various faults which are collected in the *Characters* as we have it appear to have been borrowed. That this, as it stands, is an authentic work of Theophrastus is incredible; and that a genuine treatise on Characters by him underlies it, as BRANDIS, iii. 360, thinks possible, is in fact very unlikely. The origin of the collection above suggested explains, on the one hand, the fact that it does not form a connected whole, and, on the other, the fact that it exists in several different recensions, as to which cf. PETERSEN, *Theoph. Characteres*, p. 56 sqq., SAUPPE, *Philodemi De vitiis*, I. x. (Weimar, 1853), p. 8. SPENGEL, *Abhandl. der Münchener Akad. Phil., Philos. Kleinschriften*, iii. 495, and PETERSEN, *Theoph. Characteres*, p. 66, have also suggested that this Theophrastian treatise has been used for the statement of the ethical teaching of the Peripatetics in STOBAEUS, *Ecl.* ii. 242–334, HERREN having already connected a part of the account (*v.* his remarks on p. 254) with THEOPHR.'S book *π. εὐτυχίας*. In any case, the sources from which not, however, fail here to observe a certain deviation from Aristotle's point of view, consisting not so much in new or different conclusions as in a slightly altered estimate of the relative importance of the different elements which it is the problem of ethics to combine. Aristotle had not overlooked the significance of external goods and circumstances for the moral life of man, but he regarded these only as aids and instruments of moral activity, and insisted on their subordination to practical virtue. In Theophrastus, on the other hand, we find springing from his desire to escape from all disturbances a tendency to attach greater importance to outward circumstances. With that preference for theoretic activity which is so deeply rooted in the Aristotelian system, there is united in Theophrastus the demand of the student to be permitted to devote himself without hindrance to his work as well as that limitation to private life which was the outcome of the altered conditions of the time. As a consequence of this his moral tone lacks some of the rigor and force which, in spite of his cautious regard for the external conditions of action, are so unmistakable in Aristotle. The objections, however, which were urged against him, especially by his Stoic opponents, on this ground, are manifestly exaggerated; the difference between him and Aristotle is an insignificant one of emphasis, not a fundamental one of principle.

STOBÆUS drew must have been of a much later date (cf. ZELLER, *Ph. d. Gr.* iii. a. 546 sq.) and we cannot use his statement as evidence concerning the teaching of Theophrastus himself, except in the one passage (at p. 300) where he is named. As to this, cf. BRANDIS, p. 358–9.

The character here attributed to the ethical views of Theophrastus shows itself especially in his account of happiness, which he holds to be the goal of philosophy as of human activity in general.[1] While he agrees with Aristotle in holding that virtue is absolutely desirable, and regards it, if not alone, at least in a special sense as good,[2] he yet was unable to admit that outward conditions are indifferent. He denied that virtue alone was sufficient for happiness, or that the latter could exist together with extreme forms of physical suffering.[3] He complained of the disturbances to which our intellectual life is subjected from the body;[1] of the shortness of human life, which ceases just when we have arrived at some degree of insight;[2] and of the dependence of man upon circumstances which lie beyond his own control.[3] It was not indeed his intention to depreciate in this way the worth of virtue, or to seek the essence of happiness in accidental advantages and states,[4] but he certainly seems to attribute to outward relations greater importance than his master had done. The explanation of this trait must be sought, however, in his predilection for the peace and quiet of the life of study. He is not accused of attributing to external goods as such any positive value.[5] Even his

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[1] CIC. *Fin.* v. 29, 86: 'omnis auctoritas philosophiæ, ut ait Theophrastus, consistit in vita beata comparanda. beate enim vivendi cupiditate incensi omnes sumus'—assuming that the words 'ut ait Th.' are to be transposed to this place, as appears probable.

[2] CICERO, *Legg.* i. 13, 37–8, counts Theophrastus and Aristotle among those 'qui omnia recta et honesta per se expetenda duxerunt, et aut nihil omnino in bonis numerandum, nisi quod per se ipsum laudabile esset, aut certe nullum habendum magnum bonum, nisi quod vere laudari sua sponte posset.' To Theophrastus, however, we ought to ascribe only the latter of these opinions, and this the more confidently because it is probable from the context that CICERO is here, as elsewhere, following ANTIOCHUS, whose eclectic point of view led him to minimise the differences between the ethics of the Stoics and of the Peripatetics, just as much as the Stoics, on their side, were accustomed to exaggerate the distinction. In *Tusc.* v. 9, 24, CICERO himself tells us that Theophrastus admitted *three* kinds of Goods—as did Aristotle (*supra*, vol. ii. p. 151, n. 1), Plato and the Academics (see ZELLER, *Ph. d. Gr.* i. 808, n. 3, and 879, n. 2).

[3] CIC. *Tusc.* v. 8, 24: 'Theophr. . . . cum statuisset, verbera, tormenta, cruciatus, patriæ eversiones, exilia, orbitates magnam vim habere ad male misereque vivendum [so said Aristotle also; *v. supra*, vol. ii. pp. 145, 150, nn. 1, 2], non est ausus elate et ample loqui, cum humiliter demisseque sentiret . . . vexatur autem ab omnibus [by the Stoics and, above all, the Academics] . . . quod multa disputarit, quamobrem is qui torqueatur, qui crucietur, beatus esse non possit.' Cf. *Fin.* v. 26, 77, 28, 85. It is no doubt the same part of the teaching to which CICERO, in *Acad.* ii. 43, 134, alludes when he remarks that Zeno had expected of virtue more than human nature admitted, 'Theophrasto multa diserte copio-

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seque [contra] dicente'; and also when he complains, in *Acad.* i. 9, 33, that 'Theophr. . . . spoliavit virtutem suo decore imbecillamque reddidit, quod negavit in ea sola positum esse beate vivere'; cf. *Fin.* v. 5, 12: 'Theophrastum tamen adhibeamus ad pleraque, dummodo plus in virtute teneamus, quam ille tenuit, firmitatis et roboris.'

[1] *Apud* PLUT. *De Sanit. tu.* 24, p. 135, e. In PORPH. *De Abstin.* iv. 20, p. 373 we have the saying: *πολὺ τῷ σώματι τελεῖν ἐνοίκιον τὴν ψυχήν*: that is, as it is explained in the Plutarch Fragment i. 2, 2, p. 696, the *λύπαι, φόβοι, ἐπιθυμίαι, ζηλοτυπίαι*.

[2] *Vide supra*, vol. ii. p. 351, n. 2.

[3] CIC. *Tusc.* v. 9, 25: 'Vexatur idem Theophrastus et libris et scholis omnium philosophorum, quod in Callisthene suo laudavit illam sententiam: vitam regit fortuna, non sapientia.' Cf. PLUT. *Cons. ad Apoll.* 6, p. 104, d.

[4] Cf. *supra* vol. ii p. 402, n. 1. The story about Pericles in PLUT. *Pericles*, 38, can only be intended to lead up to a *negative* answer to the question which is there proposed by Theophrastus, *εἰ πρὸς τὰς τύχας τρέπεται τὰ ἤθη καὶ κινούμενα τοῖς τῶν σωμάτων πάθεσιν ἐξίσταται τῆς ἀρετῆς*. As to the words cited from Callisthenes, they are (as CICERO himself remarked and indicated by his metrical translation) a phrase of some other writer, probably a tragic or comic poet, which Theophrastus quoted; and, besides, it would be necessary, before we could draw a safe inference from them, that we should know the context in which Theophrastus introduced them. An isolated excerpt such as this in an attack by an opponent is not a safe basis for a conclusion as to Theophrastus's real teaching.

[5] He is blamed merely because he holds that sorrows and misfortune are a *hindrance* to

statements about pleasure closely accord with the Aristotelian teaching.[1] But that preference for the scientific life which he shared with Aristotle[2] was in his case not free from one-sidedness, and he held himself aloof from all that might in any degree disturb him in the practice of it. We see this especially in the fragment of his work upon Marriage;[3] from which he dissuaded the philosopher, both on the ground that the care of a house and family withdrew him from his work, and that he especially must be self-sufficient and

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happiness; but this is genuine Aristotelian teaching: *v. sup.* vol. ii. p. 402, n. 3. But, on the other hand, he required (*ap.* STOB. *Floril.* iv. 283, No. 202, Mein.), that men should by simplicity of life make themselves independent of external things; he desired, *ap.* PLUT. *Lyc.* 10 (see PORPH. *De Abst.* iv. 4, p. 304), *Cup. Div.* 8, p. 527, to see man become by a proper use of wealth ἄπλουτος καὶ ἄζηλος; and he finds (*ap.* CIC. *Off.* ii. 16, 56) the chief value of riches in the fact that they serve for 'magnificentia et apparatio popularium munerum.'

[1] In the passage given by ASPASIUS (*Class. Journal*, xxix. 115; cf. BRANDIS, iii. 381) THEOPH. says, as Aristotle also might have said, that it is not the desire of a pleasure which is blameworthy, but the passionateness of the desire and the want of self-control. According to OLYMPIODORUS (in *Phileb.* 269, Stallb., he maintained against Plato, μὴ εἶναι ἀληθῆ καὶ ψευδῆ ἡδονὴν, ἀλλὰ πάσας ἀληθεῖς. By this, however, he cannot have meant to deny the differences in quality between different sorts of pleasure, which the Peripatetic school always admitted. He meant merely, as is clear from the fuller explanation given by OLYMPIODORUS, that the ascription of 'truth' and 'falsehood' to pleasure is inappropriate, because every pleasure is for the man who feels it a *true* pleasure, and the predicate 'false' is therefore never suitable. If the words ἢ ῥητέον &c. which follow still refer to THEOPH., it seems that he even admitted the use of the words 'true' and 'false' in this connection, if only they were properly explained.

[2] CIC. *Fin.* v 4, 11, says of both, 'vitæ autem degendæ ratio maxume quidem illis placuit quieta, in contemplatione et cognitione posita rerum,' &c. *Ib.* 25, 73, and *Ad Att* ii. 16, we are told that Dicæarchus gave the preference to the practical life, and Theophrastus to the theoretical.

[3] HIERON. *Adv. Jovin.* i. 47, iv. 6, 189, Mart. Vide *Theophrasti Opp.* (ed. Schneid.) v. 221 sqq.

able to dispense with family life.[1] It is quite consistent with this attitude of thought that Theophrastus should shun, as a hindrance to perfect happiness, such external fatalities and sufferings as threaten freedom and peace of mind. His nature was not adapted for the battle with the world and with the ills of life. The time and strength which this would demand would be withdrawn from the scientific labours which were his only happiness; it would interrupt quiet contemplation and the intellectual peace that accompanied it. Therefore he avoided everything which might involve him in such a conflict. Both the Stoic and the Epicurean school at this time aimed at making the wise man independent and self-sufficient. Theophrastus pursued the same end, except that, true to the spirit of the Peripatetic ethics, he refused to overlook the external conditions of the self-sufficient life.[1]

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[1] Theophrastus in this passage is answering the question, Whether the wise man would take a wife? He begins by saying that he would, 'si pulchra esset, si bene morata, si honestis parentibus, si ipse sanus ac dives.' But he promptly goes on to say that all these conditions are seldom combined, and therefore it is more prudent to avoid matrimony. 'Primum enim impediri studia philosophiæ, nec posse quemquam libris et uxori pariter inservire.' The best possible teacher might be to be found abroad, but one could not go to seek him if one was tied to a wife. Again, a wife has no end of costly wants. She fills her husband's ears, as Theophrastus explains in lively mimicry, with hundreds of complaints and reproaches, night and day. A poor woman is costly to keep: a rich one is unendurable. A man does not discover his wife's faults until after marriage. Her demands, her jealousies, her insistences on what is due to her and her family are endless. A beautiful wife is hardly to be kept faithful; yet a wife without beauty is a burden, &c., &c. It is wiser to leave one's housekeeping to a faithful servant, and to trust to one's friends in case of sickness. As for company, a man needs no wife: the wise man is never alone, for he has the wise men of all ages for his companions; and if men fail him he can speak with God. Nor should one set store by children, for they often bring one rather trouble and expense than joy or help. For heirs, a man does better to choose his friends.

As in the points hitherto discussed the difference discernible between Theophrastus and Aristotle is one of degree only, which does not admit of being strictly defined, so also in the remaining portions of his moral philosophy which are known to us it is but seldom that any important divergence of view is visible. Theophrastus, like Aristotle, defined virtue as the preservation of the true mean according to reason between two vices, or, more accurately, as the quality of the will directed to this end, under the guidance of insight.[2]

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[1] We should not, however, be justified in referring to Theophrastus the line of argument set out in CIC. *Fin.* v. 6, 17, 9, 24 sqq. and STOB. *Ecl.* ii. 246 sqq., in which the Stoic dogma of the life according to nature is brought into relation with the Peripatetic theory of the different kinds of Good; for Cicero's account is derived, according to c. 3, 8, 25, 75, 27, 81 from Antiochus, and that in Stobæus (ZELLER, *Ph. d. Gr.* iii. a, 546 sq. 2nd ed.) from Arius Didymus, and the later Eclecticism has manifestly coloured both of these sources

[2] STOB. *Ecl.* ii. 300: τὸ οὖν πρὸς ἡμᾶς μέσον ἄριστον, οἷον, φησὶν ὁ Θεόφραστος, ἐν ταῖς ἐντυχίαις ὀδὶ μὲν πολλὰ διελθὼν καὶ μακρῶς ἀδολεσχήσας, ὁδὶ δ' ὀλίγα καὶ [which GAISF. unnecessarily deletes] οὐδὲ τἀναγκαῖα οὗτος δὲ αὐτὰ ἃ ἔδει μὴ τὸν καιρὸν ἔλαβεν. αὕτη μεσότης πρὸς ἡμᾶς, αὕτη γὰρ ὑφ' ἡμῶν ὥρισται τῷ λόγῳ. δι' ὃ ἔστιν ἡ ἀρετὴ ἕξις προαιρετικὴ, ἐν μεσότητι οὖσα τῇ πρὸς ἡμᾶς, ὡρισμένη λόγῳ, καὶ ὡς ἂν ὁ φρόνιμος ὁρίσειεν [this is word for word the Aristotelian definition; *supra*, vol. ii. p. 163, n. 2]. εἶτα παραθέμενος τινὰς συζυγίας, ἀκολούθως τῷ ὑφηγητῇ (ARIST. *Eth. N.* ii. 7) σκοπεῖν ἔπειτα καθ' ἕκαστον ἐπάγων ἐπειράθη τὸν τρόπον τοῦτον [perhaps we should read σκοπεῖν ἐπειράθη κ. ἕκ. ἐπάγων τ. τρ. τ.]· ἐλήφθησαν δὲ παραδειγμάτων χάριν αἵδε· σωφροσύνη, ἀκολασία, ἀναισθησία· πρᾳότης, ὀργιλότης, ἀναλγησία· ἀνδρεία, θρασύτης, δειλία· δικαιοσύνη· ἐλευθεριότης, ἀσωτία, ἀνελευθερία· μεγαλοπρέπεια, μικροπρέπεια, σαλακωνία. After an explanation on these lines of the nature of the virtues named, he adds, at p. 306: τοῦτο μὲν τὸ τῶν ἠθικῶν ἀρετῶν εἶδος παθητικὸν καὶ κατὰ μεσότητα θεωρούμενον, ὃ δὴ καὶ τὴν ἀντακολουθίαν ἔχει [add τῇ φρονήσει], πλὴν οὐχ ὁμοίως, ἀλλ' ἡ μὲν φρόνησις ταῖς ἠθικαῖς κατὰ τὸ ἴδιον, αὗται δ' ἐκείνῃ κατὰ συμβεβηκός. ὅτι [read ὁ] μὲν γὰρ δίκαιος ἐστὶ καὶ φρόνιμος, ὁ γὰρ τοιόσδε αὐτὸν λόγος εἰδοποιεῖ, οὐ

In the description of the different virtues and their opposite vices we cannot doubt that he went into greater detail than his master,[1] although we can follow his work here only in respect of some of the vices under the uncertain guidance of the *Characters*. He did not, however, conceal from himself that the distinction between the separate virtues is to a certain degree a vanishing one, inasmuch as they all find in moral insight a common root and connecting principle.[2] That

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μὴν ὅτι [*δ*] *φρόνιμος καὶ δίκαιος κατὰ τὸ ἴδιον, ἀλλ' ὅτι τῶν καλῶν κἀγαθῶν κοινῶς πρακτικὸς φαύλου δ' οὐδενός* (*i.e. φρόνησις* is contained in the idea of justice *immediately*, since justice is the adjustment of relations concerning rights according to *φρόνησις*; but justice is contained in the idea of *φρόνησις* only *mediately*).—Down to this point the extract seems to come from THEOPHRASTUS, because there is an unbroken grammatical connection from the words *εἶτα παραθέμενος*, &c., which can only refer to him. The reading *ἐν ταῖς ἐντυχίαις* in the second line of the passage is rightly supported by PETERSEN, *Theophr. Characteres*, 67 sq., against HEEREN'S conjecture, *ἐν τοῖς περὶ εὐτυχίας*. PETERSEN, however, himself distorts THEOPHRASTUS'S meaning (which in this evidently incomplete excerpt is not very clearly expressed) when he reads *καὶ μὴν τὸν καιρὸν ἔλαβεν*, in place of *μὴ τ. κ. ἔλ.* For the words *οὗτος . . . ἔλαβεν* indicate, not the correct course, but a third kind of error, that, namely, in which what is done may be right in itself but not right in relation to the particular circumstances of the persons acting: where, that is to say, the *μεσότης πρὸς τὸ πρᾶγμα* is observed, but not the *μεσότης πρὸς ἡμᾶς* (cf. *supra*, vol. ii. p. 162, n. 3).

[1] This cannot be said to be proved with any certainty (as has been already pointed out), from what we find in STOB. *Ecl.* ii. 316 sqq., and CIC. *Fin.* v. 23, 65. It is, however, probable in itself, arguing on the analogy of the general lines of Theophrastus's work, and it is made still more probable when we remember the detailed description of a series of failings which we have in the *Characters*. We are told by HERMIPPUS (*ap.* ATHEN. i. 21, a: cf. *supra*, vol. ii. p. 352, n. 1), probably with some exaggeration (as BRANDIS, p. 359, justly remarks), that Theophrastus in his lectures carried even a mimicry of outward characteristics to great lengths. His tendency to and talent in such pictures of detail is obvious from the *Fragm.* just described at p. 405, n. 1, *supra*. The notice of Adrantus (*supra*, p. 400) is probably one of numerous examples introduced by him to illustrate his *Ethics*.

[2] ALEX. APHR. *De An.* 155,

one who so preferred scientific to practical activity distinguished dianoëtic from moral virtue cannot be doubted; nor could he easily avoid touching upon it in his *Ethics*; but whether he here discussed it at length it is impossible to tell.[1] Nor have we fuller information as to his treatment of the passions.[2] We are only informed that he maintained, seemingly against Zeno, the naturalness and inevitableness of certain emotions, such as anger against wrong-doing and under excitement.[3] For the rest he demands that no one should act under the influence of passion—for instance, that no one should inflict punishment in anger.[4] Of the sins

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b: *πᾶσαι ἂν ἕποιντο αἱ ἀρεταὶ τῇ φρονήσει. οὐδὲ γὰρ ῥᾴδιον τῶν ἀρετῶν κατὰ τὸν Θεόφραστον τὰς διαφορὰς οὕτω λαβεῖν, ὡς μὴ κατά τι κοινωνεῖν αὐτὰς ἀλλήλαις. γίνονται δ' αὐταῖς αἱ προσηγορίαι κατὰ τὸ πλεῖστον.* Cf. the end of the passage from STOBÆUS quoted in the preceding note. *Ibid.* p. 270: *φρόνησις* decides, both for itself and for all other virtues, what is and what is not to be done, *τῶν δ' ἄλλων ἑκάστην ἀποτέμνεσθαι μόνα τὰ καθ' ἑαυτήν.*

[1] That he did not, PETERSEN, *ib.* 66, concludes (with SPENGEL, *Abhandl. der München. Akad. philol.-philos. Kleinschriften*, iii. 495) from the absence of the Dianoëtic Virtues in the *Magna Moralia*. It is, however, to be observed, on the one hand (as BRANDIS, ii. 6, 1566, iii. 361, suggests), that these virtues are not in fact unknown to that book, and, on the other hand, that it is impossible to prove that the book here follows Theophrastus. In STOBÆUS, *Ecl.* ii. 316, we find the *ἕξις θεωρητική*, to which belong *σοφία, ἐπιστήμη*, and *φρόνησις*, distinguished from the *ἕξις πρακτική*. Since, however, Aristotle himself (see *supra*, vol. ii. p. 178, n. 1) only discussed the theoretic activities in his *Ethics* so far as was necessary for the complete explanation of the ethical aspect of life, we cannot assume that Theophr. treated the subject in any other way.

[2] SIMPL. *Schol. in Ar.* 70, b, 3, citing the *π. παθῶν* (*d. q. v. supra*, vol. ii. p. 399), tells us that THEOPHR. distinguished the notions of *μῆνις, ὀργὴ* and *θυμὸς* by the formula of *μᾶλλον καὶ ἧττον.*

[3] SENECA, *De Ira*, i. 14, 1, 12, 1, 3; BARLAAM, *Eth. sec. Sto.* ii. 13 (*Bibl. Max. patr.* xxvi. 37 D, and *apud* BRANDIS, iii. 356). Against the Stoics were doubtless also directed the arguments mentioned by SIMPL. *Categ.* Schol. 86, b, 28, as to the mutability of the virtues.

[4] STOB. *Floril.* 19, 12.

of passion he declared those of desire to be worse than anger, since it is worse to succumb to pleasure than to pain.[1]

Theophrastus, like Aristotle, had devoted special attention to the moral relations which rest upon community of life. We know of special treatises written by him upon Friendship, Love, and Marriage.[2] He set the highest value upon Friendship—provided it is of the right kind, which, however, is not often the case.[3] He even went so far as to permit slight violations of duty if the interests of a friend could thereby be greatly furthered, holding that in this case the qualitatively higher worth of moral virtue was outweighed by the quantitative preponderance of the counterbalancing advantage to a friend, just as the value of a little piece of gold might be exceeded by a large quantity of copper.[4] All the more necessary must prudence in the selection of friends have appeared to him.[5] The three kinds of friendship which Aristotle had distinguished he also recognises,[1] and doubtless in his treatise upon them made many fine observations upon the peculiarities of each of them and the divers relations in which friendship involves us.[2] He has much less sympathy with the more passionate affection of the lover: to him this is an irrational desire which overpowers the soul, and, like wine, may only be enjoyed in moderation.[3] This, however, is not the ground of his own disinclination to marriage;[4] upon which, notwithstanding, as upon the education and the conduct of women,[5] he may be credited with having said much that is true.[6]

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[1] M. AUREL. πρ. ἑαυτ. ii. 10, Schol. *apud* CRAMER, *Anecd. Paris*. i. 174. So also Aristotle: *v. supra*, vol. ii. p. 190, n. 1 and p. 113, n. 1.

[2] *Supra*, vol. ii. p. 399, n. 2. Theophrastus's three books on Friendship were extensively used by CICERO for his *De Amicitia*: cf. GELL. *N. A.* i. 3, 11.

[3] HIERON. *in Micham*, iii. 1548, Mart.: 'scripsit Theophrastus tria de amicitia volumina, omni eam praeferens charitati, et tamen raram in rebus humanis esse contestatus est.' Cf. the remark quoted *supra*, vol. ii. p. 405, n. 1, that to be cared for by a friend is better than to be tended by a wife.

[4] See GELL. *N. A.* i. 3, § 10, 21–28, who gives partly the Greek text, partly a translation and summary. CICERO (*Amic.* 11 sqq. 17, 61) passes, as Gellius rightly complains, much too lightly over this point. He declaims passionately against the view, which nobody set up, that a man should commit treason or other gross crimes to oblige a friend; but at the end he concedes in two words, that if a friend's interests are very deeply involved, 'declinandum sit de via, modo ne summa turpitudo sequatur.' BRANDIS (iii. 353) sees in this a criticism of the teaching of Theophrastus; but this does not seem to be necessary.

[5] PLUT. *Frat. Am.* 8, p. 482,

Of Theophrastus's political writings we know, apart

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b (STOB. *Floril.* 84, 14; SENECA, *Ep.* i. 3, 2; see Schneider, v. 289): we must try friends, before we love them: with our family, the converse is true.

[1] EUSTRAT. *in Eth. N.* 141, a (BRANDIS, iii. 352, by a slip refers it to Aspasius); Theophrastus and Eudemus held that friendships of persons in unequal relation were divisible into the same three classes as friendships of equality. Cf. *Eth. Eud.* vii. 4 *init.*, and see *supra*, vol. ii. p. 196, n. 3.

[2] Examples are the citations given in GELLIUS, viii. 6: 'In reconciliations with friends explanations are dangerous:' PLUT. *Frat. Am.* 20, p. 490: 'If friends have everything in common, it must especially be true that they have their respective friends in common:' PLUT. *Cato Min.* c. 37; 'Excessive friendship easily passes over into hate.' STOB. *Floril.* 3, 50 *ad fin.*: 'It is better *δανείσαντα φρονίμως ἀπολαβεῖν φιλικῶς, ἢ συναλλάξαντα φιλανθρώπως κομίσασθαι φιλαπεχθημόνως.*' Further interesting fragments of this work of THEOPHR. will be found in HEYLBUT, *De Theophr. Libr. π. φιλίας*, 13 sqq.

[3] STOB. *Floril.* 64, 27, 29; ATHEN. xiii. 562, e.

[4] *Supra*, vol. ii. p. 405, n. 1.

[5] See STOB. *Floril.* 74, 42: a woman should neither wish to see nor to be seen; *ibid.* 85, 7: not politics but housekeeping is her sphere; *ibid.* vol. iv. 193; No. 31 Mein.: education in *γράμματα* is necessary for girls also, but it should not be carried beyond what is needful for housekeeping.

[6] In the passage cited in STOB. *Floril.* 3, 50, he insists on sympathy and friendliness towards wife and children.—The

from a number of historical statements, only the general fact that here also he endeavoured to supplement the Aristotelian teaching and that to Aristotle's account of the different kinds of States he added a collection of laws. In his own investigations into the nature of the State he gave special prominence to the discussion of the magisterial offices, and to the treatment of the problems that arise in connection with special circumstances. It is not to be supposed that Theophrastus deviated in any respect from the principles of Aristotle's political doctrine;[1] and if in addition to the national bond of

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remaining fragments of Theophrastus's ethical texts give us only isolated remarks, often keen and finely observed, but without any special philosophic interest. Such are the apophthegms preserved by STOBÆUS in the *Florilegium* (see the index thereto) and by PLUTARCH, *Agis*, c, 2, and *Sertor.* c. 13: the statement as to his commendation of hospitality in CIC. *Off.* ii. 18, 64: the remark (probably aimed at Anaxagoras) as to the relation between pleasure and pain, cited by ASPASIUS *in Arist. Eth.* (*Classical Journal*, xxix.) 114. The note *ap.* OLYMPIOD. *in Phileb.* 169 as to the threefold ψεῦδος, relates, not to moral falsehood, but to the possible meanings of ψευδὴς ἡδονὴ (cf. *supra*, vol. ii. p. 404, n. 1.)

[1] For almost everything we know of his politics we are indebted to CICERO. We know, in fact, that he was one of Cicero's favourite political authors (*Ad Att.* ii. 9, 2). Cicero tells us, not only that Theophrastus had thoroughly worked out a political philosophy, with great knowledge of the subject (*Divin.* ii. 1, 3: the 'locus de republica' was, he says, 'a Platone Aristotele Theophrasto totaque Peripateticorum familia tractatus uberrime'; *Legg.* iii. 6, 14: 'Theophrastus vero institutus ab Aristotele habitavit, ut scitis, in eo genere rerum'), but he gives us further details as to the contents of his political writings. *Legg.* iii. 5, 14: 'Sed hujus loci de magistratibus sunt propria quædam, a Theophrasto primum, deinde a Dione [? Diogene] Stoico quæsita subtilius.' *Fin.* v. 4, 14: 'Omnium fere civitatum, non Græciæ solum, sed etiam barbariæ, ab Aristotele mores instituta disciplinas, a Theophrasto leges etiam cognovimus; cumque uterque eorum docuisset, qualem in republica principem esse conveniret, pluribus præterea cum scripsisset, quis esset optimus reipublicæ status: hoc amplius Theophrastus, quæ essent in republica inclinationes rerum et momenta temporum, quibus esset moderandum utcumque res pos-

fellow-citizenship he gives express prominence to the natural brotherhood of all men,[1] yet this is quite in harmony with the spirit of his master,[2] however significant the approach in it may be to the cosmopolitanism of the Stoics.[3]

In one of his ethical writings Theophrastus expressed views upon sacrifice in which the ascetic Aristotelian

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tularet.'—Of Theophrastus's political works we know from Diogenes, &c., the *νόμοι* in twenty-four books (see *Fr.* 97–106; the *ἐπιτομὴ νόμων* in 10 bks. can only be a later extract from the *νόμοι*); 1 bk. *π. νόμων* and 1 bk. *π. παρανόμων* (DIOG. 47), perhaps also excerpts from the *νόμοι*; 3 bks. *νομοθετῶν* (the title was no doubt *νομοθέται* or *περὶ νομοθ.*); 4 bks. *πολιτικῶν ἐθῶν*; 6 bks. *πολιτικῶν* (D. 45), and again 2 bks. *πολιτικῶν* (D. 50), which were probably a duplicate or excerpt of the others [unless we are to read in D. 50 with COBET and HENKEL (*Stud. z. Gesch. d. griech. Lehre vom Staat*, p. 20), not *πολιτικῶν*, but, on the analogy of the Aristotelian *πολιτικὸς* (*supra*, vol. 1, p. 59) *πολιτικοῦ*]; 1 bk. *π. τῆς ἀρίστης πολιτείας* (D. 45) or (D. 49) *πῶς ἄριστ' ἂν πόλις οἰκοῖτο*; 2 bks. *ἐπιτομὴ τῆς Πλάτωνος πολιτείας*; 1 bk. *π. βασιλείας* (D. 42) and 1 bk. *π. τυραννίδος* (D. 45), both probably combined in the 2 bks. *π. βασιλείας* (D. 49); *πρὸς Κάσσανδρον π. βασιλείας* (D. 47), which according to ATHEN. iv. 144, e, was also ascribed to Sosibius; 1 bk. *π. παιδείας βασιλέως*; 4 bks. *πολιτικῶν πρὸς τοὺς καιροὺς* (to which also the 2 bks. *καιρῶν*, D. 50, may be referred). This work is often cited (by CIC. *Fin.* v. 4, 11 as the 'momenta temporum').—Further notes as to these writings and the evidence about them will be found in USENER, *Anal. Th.* 6 sqq., HENKEL, *ibid.* 19 sqq.; and as to the *νόμοι* in particular, see USENER, *Rhein. Mus.* xvi. 470 sqq.

[1] See the passage *apud* PORPH. *De Abst.* iii. 25, cited *supra*, vol. ii. p. 396, n. 1.

[2] See the passage from *Eth.* viii. 13, 1161, b, 5 referred to *supra*, p. 219, n. 5, where Aristotle says that a friendship with a slave is possible, not indeed *ᾗ δοῦλος*, but *ᾗ ἄνθρωπος· δοκεῖ γὰρ εἶναί τι δίκαιον παντὶ ἀνθρώπῳ πρὸς πάντα τὸν δυνάμενον κοινωνῆσαι νόμου καὶ συνθήκης· καὶ φιλία δή, καθ' ὅσον ἄνθρωπος.*

[3] Cf. BERNAYS, *Theophr. üb. Frömmigk.* 100 sq. His remark that in the Aristotelean Ethics there is no note of the love of humanity must be somewhat limited by the passage just cited; but we may concede that in Theophrastus this side of things, which in Aristotle was far less prominent, obtained much greater importance in conformity with the spirit of the new epoch which came with Alexander.

followed Empedocles and anticipated Porphyry.[1] He not only sought historically to prove that originally only the simplest products of nature[2] were used for sacrifices, and that animal offerings especially were of later origin,[3] but he also demanded that men should abstain from the latter, and confine themselves to the more harmless presentation of fruits of the field.[4] The slaughter, moreover, of animals in general and the use of their flesh, in so far as the former was not rendered necessary by their ferocity, the latter by lack of other provisions, he was consistent enough to condemn, on the ground that these beasts are akin to us, and therefore possess rights as against us which forbid us forcibly to rob them of life.[5] He did not, however, on this account desire to renounce the national rites of sacrifice.[6] He merely said that their moral value lay, not in the greatness of the gift, but in the disposition of the giver.[7]

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[1] The *π. εὐσεβείας, d. q. v. supra*, vol. ii. p. 355, n. 2.

[2] *E.g.* first grass, then fruits; first water, then honey, and, still later, wine.

[3] PORPH. *De Abstin.* ii. 5–8, 12–15, 20–1, pp. 39, 56, 62, 79, &c., Bern. He dealt with human sacrifices (*ibid.* c. 7) and with the peculiar customs of the Jews as to sacrifices (ii. 26); see, as to the mistakes in the latter section, BERNAYS, p. 109 sqq. 184–5.

[4] *Ibid.* c. 12 sqq. 22 sqq.

[5] *Ibid.* c. 12–18, 22–23, and cf. *supra*, ii. p. 396.

[6] *Ibid.* ii. 43, p. 184: *ὥστε κατὰ τὰ εἰρημένα Θεοφράστῳ θύσομεν καὶ ἡμεῖς.* The theory which Porphyry here sets out, that this view was founded on a belief in Demonology, cannot be taken from Theophrastus; and, in fact, Porphyry does not ascribe it to him. Nor have we any sufficient ground in PLUT. *Def. Orac.* 20, p. 420, to assert that Theophrastus believed in Dæmons. Even if it be true that the passage correctly represents his attitude to the belief, it would only prove that, while he could not accept it in the prevailing form, he did not feel free to reject it absolutely.

[7] *Apud* STOB. *Floril.* 3, 50, he says: *χρὴ τοίνυν τὸν μέλλοντα θαυμασθήσεσθαι περὶ τὸ θεῖον φιλοθύτην εἶναι μὴ τῷ πολλὰ θύειν ἀλλὰ τῷ πυκνὰ τιμᾷν τὸ θεῖον· τὸ μὲν γὰρ εὐπορίας τὸ δ' ὁσιότητος σημεῖον*, and *ap.* PORPH. *De Abstin.* ii. c.

His whole conception of religion was undoubtedly identical with that of his master.[1]

From the numerous works of Theophrastus upon Rhetoric[2] only a few not very important observations are preserved.[3] Of his works upon the theory of art[4]

19, he goes on to say that the costliness of the offering is not the important thing, but rather the purity of the intention; for the Godhead will be best pleased by the right direction of that in us which is akin to Himself, and most divine: with which cf. ARIST. *Eth.* ix. 9, 1179, a, 24.

[1] We have shown this of his theology, see *supra*, vol. ii. p. 370 sq. As to matters touching popular religion and its myths, it would be quite in the spirit of Aristotle if Theophrastus explained the Prometheus myth by the theory that Prometheus was the first teacher of men (*Fr.* 50, b. *Schol. in Apoll. Rhod.* ii. 1248), and the myth of the Nymphs nursing Dionysos by reference to the 'tears' of the vine (ATHEN. xi. 465, b).

[2] *De quo* cf. USENER, *Anal. Theophr.* p. 20 whose conjecture, that the words *εἴδη ιζʹ περὶ τεχνῶν ῥητορικῶν* are the general title covering the books separately set out in the list, seems very probable.

[3] The definition of the *σκῶμμα* as *ὀνειδισμὸς ἁμαρτίας παρεσχηματισμένος* (PLUT. *Qu. Conv.* ii. 1, 4, 7, p. 631), which is certainly taken from one of the rhetorical books (or perhaps, as BRANDIS, iii. 366, suggests, from the *π. γελοίου*) and a few similar details (see *Fr.* 93–96, the Index to the *Rhetores Graeci* s. v. 'Theophr.,' CIC. *De Invent.* i. 35, 61), and also the statement of AMMONIUS (*Theophr. Fr.* 74 sq. cf. *supra*, vol. ii. p. 363, n. 3) that Theophr. distinguished in speech a double relation—that to the hearers, and that to the subject in hand. With the former Rhetoric and Poetics are concerned, and these studies accordingly have to do with choice of expression, charm of utterance, pleasing and effective presentation of the subject, &c: *τῆς δέ γε πρὸς τὰ πράγματα τοῦ λόγου σχέσεως ὁ φιλόσοφος προηγουμένως ἐπιμελήσεται, τό τε ψεῦδος διελέγχων καὶ τὸ ἀληθὲς ἀποδεικνύς.* AMMONIUS cites this sentence to prove that the *π. ἑρμηνείας* dealt only with the *ἀποφαντικὸς λόγος*: it must accordingly have referred in the text of Theophr. only to the form of oral statement, and it cannot have been intended as a statement of the distinction between philosophy in general and Rhetoric and Poetics.

[4] DIOG. 47–8, 43 mentions two *π. ποιητικῆς*, and one *π. κωμῳδίας*; ATHEN. in vi. 261, d, names the latter, and in viii. 348, a, also the *π. γελοίου*, but what he professes to cite from it is quite incredible. The statement that Tragedy was *ἡρωϊκῆς τύχης περίστασις* (DIOMED. *De Oratione*, p. 484, Putsch) could not have satisfied Theophrastus as a complete definition, after the elabo-

the books on music,[1] which were highly valued by the ancients,[2] are the only ones of which we have any detailed information. Even this for the most part refers to the physical explanation of sounds, and has already been dealt with in that connection.[3] Otherwise we learn merely that Theophrastus ascribed the effect of music to a movement of the soul,[4] by means of which we are delivered from the trouble and annoyance caused by certain affections;[5] that he further

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rate investigation of the subject which Aristotle had already provided.

[1] PLUT. *N. P. Suav. V. sec. Epic.* 13, 4, p. 1095, argues thus against Epicurus: *τί λέγεις, ὦ Ἐπίκουρε; κιθαρῳδῶν καὶ αὐλητῶν ἕωθεν ἀκροασόμενος εἰς τὸ θέατρον βαδίζεις, ἐν δὲ συμποσίῳ Θεοφράστου περὶ συμφωνιῶν διαλεγομένου καὶ Ἀριστοξένου περὶ μεταβολῶν καὶ Ἀριστοφάνους περὶ Ὁμήρου τὰ ὦτα καταλήψῃ ταῖς χερσί;* He thus places Theophrastus on a level with the famous musician Aristoxenus. The reference to Theophrastus cannot be explained (BRANDIS, iii. 369) of table talk about Music found in one of his books or otherwise published by him, any more than the reference to Aristoxenus could be.

[2] Π. *μουσικῆς* 2 bks. (D. 47 cf. *infra*, n. 3); *ἁρμονικῶν α'* (D. 46); *π. ῥυθμῶν α'* (D. 50). For a Fragm. from bk. ii. *π. μουσ.* (Fr. 89) see *supra*, vol. ii. p. 379, n. 3.

[3] *Supra*, vol. ii. p. 379, n. 3.

[4] So CENSORIN. *Di. Nat.* 12, 1: 'haec [musica] enim sive in voce tantummodo est . . . sive, ut Aristoxenus, in voce et corporis motu, sive in his et præterea in animi motu, ut putat Theophrastus.'

[5] At the end of Fr. 89 he says: *μία δὲ φύσις τῆς μουσικῆς, κίνησις τῆς ψυχῆς* [or, as he put it earlier, *κίνημα μελῳδητικὸν περὶ τὴν ψυχὴν*], *ἡ κατὰ ἀπόλυσιν γιγνομένη τῶν διὰ τὰ πάθη κακιῶν, ἢ εἰ μὴ ἦν.* The manifestly defective clause at the end is amended by BRANDIS, p. 369, by reading, not *ἡ κατὰ ἀπόλ.*, but *ἢ κ. ἀπόλ.* meaning: 'Music is fitted to give us relief from the pains that arise from the emotions, or to awake them where they do not exist.' This sense, however, would require, instead of *εἰ μὴ ἦν* either *ὅπου οὐκ ἐστίν* or *ἐὰν μὴ ᾖ*. Besides, the sense so obtained is not altogether satisfactory. ZELLER suggests that the text may have been somewhat as follows: *ἣ κ. ἀπόλ. . . . κακιῶν, βέλτιον ἔχειν ἡμᾶς ποιεῖ ἢ εἰ μὴ ἦν*: 'Music is a movement of the soul which brings relief from the pains produced by the emotions, and so produces in us a higher kind of wellbeing than we should have had, if these emotions had never been aroused'—which is exactly the Aristotelian idea of Catharsis: cf. *supra*, vol. ii. p. 309 sqq.

enumerated three of these affections: pain, pleasure, and possession;[1] that he connected the lively impression produced by music with the peculiar susceptibility of the auditory sense;[2] and that he held that even physical disease could be cured by music.[3] So far as we may infer from these few fragments the nature of Theophrastus's theory of art, it cannot have been different from that of Aristotle.

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[1] PLUT. *Qu. Conv.* i. 5, 2, p. 623: *λέγει δὲ Θεόφρ. μουσικῆς ἀρχὰς τρεῖς εἶναι, λύπην, ἡδονήν, ἐνθουσιασμόν, ὡς ἑκάστου τούτων παρατρέποντος ἐκ τοῦ συνήθους καὶ ἐγκλίνοντος τὴν φωνήν.* See also JOH. LYDUS, *De Mens.* ii. 7, p. 54, Röth., and in CRAMER'S *Anecd. Paris.* i. 317, 15.

[2] PLUT. *De Aud.* 2, p. 38, a: *περὶ τῆς ἀκουστικῆς αἰσθήσεως, ἣν ὁ Θεόφρ. παθητικωτάτην εἶναί φησι πασῶν*; whether the further arguments are also taken from Theophrastus it is impossible to say.

[3] ATHEN. xiv. 624, a: *ὅτι δὲ καὶ νόσους ἰᾶται μουσικὴ Θεόφρ. ἱστόρησεν ἐν τῷ περὶ ἐνθουσιασμοῦ, ἰσχιακοὺς φάσκων ἀνόσους διατελεῖν, εἰ καταυλήσοι τις τοῦ τόπου τῇ φρυγιστὶ ἁρμονίᾳ.* The like in PLIN. *H. N.* xxviii. 2, 21. We are told that viper bites and other hurts were, according to THEOPHR., healed by flute-playing (GELL. iv. 13, 2, APOLLON. *Mirabil.* c. 49).

CHAPTER XIX

EUDEMUS, ARISTOXENUS, DICÆARCHUS, AND OTHERS

NEXT in importance to Theophrastus of the immediate disciples of Aristotle[1] comes Eudemus of Rhodes.[2] Rivalling Theophrastus in erudition, he also wrote numerous treatises on the Peripatetic philosophy and the history of science.[3] All that we know of him, however, goes to show that his merit as a philosopher consisted far more in his appropriation and propagation of Aristotelian doctrines than in any independent development of them.[1] In logic, indeed, as has been already shown, he found it necessary to deviate from his master on isolated points, and in one or two not unimportant respects to supplement the Aristotelian theory;[2] but

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[1] We know nothing further of his life. He is often referred to as 'the Rhodian' and as 'the scholar of Aristotle,' to distinguish him from other men of the same name (*v.* FRITZSCHE, *Eth. Eud.* xiv). As he seems to have framed his *Logic* under Theophrastus's personal influence, but corresponded by letter with him about Aristotle's *Physics* (*v. supra*, vol. i. p. 136, n. 2, p. 143), we may conjecture that he lived for a time at Athens under Theophrastus's teaching, and that he afterwards went to his home, or to some other country. Cf. *infra*, p. 419, n. 2.

[2] He is so described in the story referred to *supra*, vol. i. p. 39, n. 1, and in the statement (*ibid.* p. 80, n.) that he edited Aristotle's *Metaphysics*. This story, however, is made doubly improbable by the statement (ASCLEP. *Schol in Ar.* 519, b, 38 sqq.) that Aristotle sent it to him to ask if it should be published, for the book is obviously incomplete; cf. *Hist.-phil. Abh. d. Berl. Akad.* 1877, p. 156.

[3] We know of the following books by Eudemus (for the passages where they are named see FRITZSCHE, *ibid.* xv., and for the Fragments, see SPENGEL, *Eud. Fragmenta*, ed. ii. 1870): *Γεωμετρικαὶ ἱστορίαι, 'Αριθμητικὴ ἱστορία, 'Αστρολογικαὶ ἱστορίαι*, the chief and almost the unique source of all later information as to the ancient mathematicians and astronomers. To these may perhaps be added a history of theological ideas; at least, that he went into this inquiry closely, and that in this connection (following Aristotle: cf. *supra*, vol. i. p. 57, n.) he dealt with the cosmogonies of Orpheus, Homer, Hesiod, Acusilaus, Epimenides, and Pherecydes, and

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also with the Babylonian, Zoroastrian, Phœnician, and (less accurately) the Egyptian theories as to the origin of the world, we learn from Damasc. *De Princ.* c. 124–5, p. 382 sqq.; cf. Diog. L. *Procem.* 9 (*Fr.* 117–8); cf. also *supra*, vol. ii. p. 352, n. 4 *fin.* In the same connection he may well have treated of the Platonic Cosmogony, and the remark preserved by Plut. *An. Procr.* 7, 3, p. 1015, as to Matter, may have belonged to this discussion, although it might also belong to his *Physics.* There were also a π. γωνίας, an Ἀναλυτικὰ in at least two books (*supra*, i. p. 67, n. 1, ii. p. 358, n. 3; *Fr.* 109 sqq.), a π. λέξεως (*supra*, vol. i. p. 66, n. 1; *Fr.* 113 sqq.); but probably not *Categories* or π. ἑρμηνείας (*supra*, vol. i. p. 65). Then there was the *Physics*, which we shall speak of presently, and the *Ethics*, of which we still possess the first three books and the last (*supra*, vol. i. p. 98, n. 1). A zoological work was also current under his name in later times, as we know from Apul. *Apol.* c. 36 (*Fr.* 109), Ælian, *Hist. An.* iii. 20, 21, iv. 8. 45, 53, 56, v. 7; but what Ælian tells us of its contents does not make for its authenticity. To this Eudemus Rose (*Arist. Libr. Ord.* 174) also assigns those anatomical inquiries for which a writer named 'Eudemus' is mentioned with praise by Galen (vide *Index*; Rose, *ibid.*; Sprengel, *Gesch. d. Arzneik* 4, ed. i. 539–40), Rufus, *Eph.* i. 9, 20, and the Homeric Scholiast (*v.* Fritzsche, *ibid.* xx. 49–50). Since this 'Eudemus,' however, is not in any of these places described as the Rhodian, and since, according to Galen (*De Ut. Anat.* 3, vol. ii. 890, *De Semine*, ii. 6, vol. iv. 646, *Hippocr. et Plat. Plac.* viii. 1, vol. v. 651, *Loc. Affect.* iii. 14, vol. viii. 212, in *Aphor.* vol. xviii. a, 7, *Libr. Propr.* vol. xix. 30) he was clearly not the senior of Herophilus, and probably not of Erasistratus, who was a pupil of Theophrastus (Diog. v. 57), nor of the Metrodorus (Sext. *Math.* i. 258) who is referred to as the third husband of Aristotle's daughter (*supra*, vol. i. p. 20, n. 3); we may more probably suppose that he is another Eudemus.—The rhetorician Eudemus (*De Gen.*: cf. Fritzsche, p. xvii) is also to be distinguished from our philosopher.

[1] Simpl. *Phys.* 93, b: μαρτυρεῖ δὲ τῷ λόγῳ καὶ Εὔδημος ὁ γνησιώτατος τῶν Ἀριστοτέλους ἑταίρων.

[2] Cf. *supra*, vol. ii. p. 358 sqq.

he rightly held fast by its fundamental principles, and in such changes as he made, we gather that he coincided for the most part with Theophrastus, who, as the more independent thinker of the two, probably here led the way.[1] In his account of Aristotle's *Physics*[2] he followed step by step the lines of the original, as a rule retaining its very words.[3] In his own *Physics* he seems to have permitted himself scarcely any important departure from his master,[4] his modifications consisting merely of a reduction of the number of books,[5] a few transpositions,[6] historical and doctrinal explanations, and such changes in the mode of expression as seemed to him to be necessary for the sake of clearness.[1] In the numerous fragments of his treatise we cannot fail to recognise a true apprehension of the Aristotelian doctrine, careful consideration of the different questions involved in it,

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[1] This is indicated by the fact that, beyond those points which they have in common, there is very little noted which is peculiar to Eudemus, but much more which is peculiar to Theophrastus.

[2] Apparently he undertook this work primarily as a textbook for his oral lectures: cf. his words *ap.* Simpl. *Phys.* 173 a: *εἰ δέ τις πιστεύσειε τοῖς Πυθαγορείοις, ὡς πάλιν τὰ αὐτὰ ἀριθμῷ* [*i.e.* that in a future world each individual entity will recur], *κἀγὼ μυθολογήσω τὸ ῥαβδίον* [the Professor's rod] *ἔχων ὑμῖν καθημένοις.* If we take this passage along with that quoted *supra*, vol. i. p. 136, n. 2, it will be seen to be probable that Eudemus set up a school of his own in some city other than Athens, and that it was for this school that he compiled his *Physics*.

[3] See the very full references given *supra*, i. p. 148, n. 4.

[4] Simplicius, who so often speaks of Eudemus, notes only a single such variance, and that is sufficiently doubftul. He tells us (*ibid.* 93, b, 94, a; *Fr.* 26) that Eudemus in his second book ascribed change in time (*i.e.* a becoming old) to the four Aristotelian kinds of motion (*v. supra*, i. p. 423, n. 1). Yet we know that he did not agree with Theophr.'s extension of movement to all the categories (see *supra*, ii. p. 373), and that, in explaining Arist. *Phys.* v. 2, 226, a, 23, he expressly pointed out that we could only talk of a motion of relation by using the word in a secondary sense (cf. *ibid.* 201, b). Apart from this question, we shall find no variance beyond the expression of a few slight doubts as to unimportant items of detail.

[5] Simpl. names only three books in the work of Eudemus; and as the citations he gives us extend over all the six earlier Aristotelian books, (cf. following notes) while the seventh was passed over by Eudemus (*supra*, i. p. 82), there cannot in all have been more than four books in the Eudemian *Physics*.

[6] The inquiries which in Ari-

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stotle occupy *Phys.* vi. 1–2 were dealt with by Eudemus (acc. to SIMPL. 220, a)—in connection with the question as to the divisibility *ad infinitum* of Space and Time, which is discussed in ARIST. *Phys.* iii. 6 (cf. *supra*, i. p. 430, n. 1)—either wholly or in part in his *second* book; whereas Space and Time in general, discussed by ARIST. in the fourth book of the *Physics*, were by Eudemus placed in the *third* (SIMPL. 124, a, 155, b, 167, b, 169, b, 173, a; THEMIST. *Phys.* 40, a). So also Eudemus dealt in the *second* book (perhaps in the same connection) with the question (which ARISTOTLE discusses *Phys.* vi. 5 *ad fin.*) how far we may say of qualitative change that it takes place in an indivisible time. Otherwise Eudemus seems to have followed the order of the Aristotelian works, excepting always the seventh book. For at the beginning of his commentary on this seventh book, at p. 242, a, SIMPL. says: *καὶ ὅ γε Εὔδημος μέχρι τοῦδε τοῖς ὅλοις σχεδὸν τῆς πραγματείας κεφαλαίοις ἀκολουθήσας, τοῦτο παρελθὼν ὡς περιττὸν ἐπὶ τὰ ἐν τῷ τελευταίῳ βιβλίῳ κεφάλαια μετῆλθεν.* According to what is said at p. 216, a, Eudemus passed directly from the end of the fifth book to the sixth book. Therefore the main part of the fifth and sixth books must have come with Eudemus, as with Aristotle, between the matter of the fourth and that of the eighth.

[1] In the present edition ZELL. has not considered it necessary to demonstrate this position by a review of the Fragments of the Eudemian *Physics*, mostly found in SIMPL., as was done in his second German edition, pp. 701–703: partly because BRANDIS, iii. 218–240, has fully gone into the contents and character of the work, and partly because the materials are also fully given by SPENGEL, *Fr.* 1–82. The only items the latter has passed over are the remarks, *apud* SIMPL. *Phys.* 2, a, (cf. ARIST. *Metaph.* xiv. 1, 1087, b, 13, and DIOG. iii. 24) that Plato was the first who called the material causes *στοιχεῖα*, and the passage cited from PLUTARCH, *supra*, ii. p. 418. In the introduction to this work, Eudemus (*v.* SIMPL. 11, a; *Fr.* 4) raised the question, not touched in the Aristotelian *Physics*, whether each of the different sciences should deduce its own principles, or whether they should in common derive them from one higher science. Here also, however, as ZELLER shows (*Hist.-phil. Abhandl. d. Berl. Akad.* 1877, p. 159 sqq. and *supra*, i. p. 79, n. 1) EUDEMUS was following one of his master's texts—*i.e.* the *Metaphysics* (iii. 2, iv. 3, 5), of which we also find echoes elsewhere in the Eudemian *Physics*.

and a skilful elucidation of many statements and conceptions; but we shall look in vain in them for fresh scientific ideas or observations.[1]

Passing over a noteworthy peculiarity in his doctrine of the Categories,[2] we may observe an important deviation from his master in the borderland between physics and metaphysics. While in general agreeing with Aristotle's theological conceptions,[3] Eudemus yet rightly finds the assertion that the *primum movens* must itself move with the world in order to move it[1] inconsistent with the immateriality of the *movens*. He does not seem to have observed, however, that the assumption which he himself shares as to its position in space is equally so, nor does he appear to have given any further explanation of the way in which God moves the world.[2]

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[1] 'Eudemus,' says BRANDIS, p. 240, very rightly, 'shows himself in his *Physics* as a scholar who follows with care and comprehension the lines of his master's thought, and who only leaves them reluctantly and in minor matters.' When FRITZSCHE, *Eth. Eud.* xviii. rests the opposite view on WEISSE'S statement (*Arist. Phys.* p. 300) that Eudemus in the *Physics* varied greatly from Aristotle, this only shows that neither of them had accurately examined the statements of Simplicius.

[2] In *Eth. N.* i. 4, 1096, a, 24 ARIST. named 6 Categories: *τί, ποιὸν, ποσὸν, πρός τι, χρόνος, τόπος*; EUDEMUS, on the other hand, says in the *Eth. Eud.* i. 8, 1217, b, 26, that Being and the Good occur in many *πτώσεις*, the *τί, ποιὸν, ποσὸν, πότε*, '*καὶ πρὸς τούτοις τὸ μὲν ἐν τῷ κινεῖσθαι τὸ δὲ ἐν τῷ κινεῖν*,' where the latter two, not found in Aristotle (*supra*, i. p. 274), appear to replace the Aristotelian *ποιεῖν* and *πάσχειν*.

[3] *Fr.* 81, b, SIMPL. 319, a and b, says that the *primum movens* has its seat (cf. Aristotle; *supra*, i. p. 409, n. 4) in the largest of the spheres, that, namely, through the pole of which the axis of the heavens passes, inasmuch as this moves quickest (following the reading which SIMPL. found in Alexander, and which is clearly better than that of the SIMPL. MS. text itself). He maintained, however, following Aristotle (*supra*, i. p. 395), that it had no parts: cf. p. 422, n. 2, *infra*, and Spengel, p. 109: *εἰ ἀμερές, φησίν, ἐστι τὸ πρώτως κινοῦν καὶ μὴ ἅπτεται τοῦ κινουμένου, πῶς ἔχει πρὸς αὐτό;* Eudemus also repeats the saying that God thinks only on himself (*Eth. Eud.* vii. 12, 1245, b, 16: *οὐ γὰρ οὕτως ὁ θεὸς εὖ ἔχει* [like a man], *ἀλλὰ βέλτιον ἢ ὥστε ἄλλο τι νοεῖν αὐτὸς παρ' αὑτόν. αἴτιον δ' ὅτι ἡμῖν μὲν τὸ εὖ καθ' ἕτερον, ἐκείνῳ δὲ αὐτὸς αὑτοῦ τὸ εὖ ἐστίν*), and therefore he deduces the further propositions that the Godhead needs no friends, and that God, by reason of his wide separation from mankind, does not love man, or at least does not so love man as man loves God (see *Eth.* vii. 3–4, 1238, b, 27, 1239, a, 17, c. 12, 1244, b, 7, 1245, b, 14; *supra*, i. p. 398, n. 1).

It is to its theological side, again, that we must look for the most distinctive peculiarity of the Eudemian ethics.[3] Aristotle had confined himself entirely to the natural side of human aims and capacities in his theory of morals; Eudemus connects human action in its origin and end more closely with the divine. With reference to the origin of action he remarks that many people without acting from insight are yet fortunate in all that they do; and as he was unable to regard this phenomenon as accidental on account of the regularity of its occurrence,[1] he held that it must be referred to a fortunate gift peculiar to these persons—a natural uprightness of will and inclination. But whence comes this gift ? Man has not given it to himself: it must therefore come from God, who is the source of movement in the world.[2] Insight, moreover, and the virtue

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[1] *Supra*, i. p. 409.

[2] Cf. *supra*, ii. p. 421, n. 3; *Fr.* 82, SIMPL. 320, a: ὁ δὲ Εὔδ. τοῦτο μὲν οὐκ ἀπορεῖ ὅπερ ὁ Ἀριστοτέλης, εἰ ἐνδέχεταί τι κινούμενον κινεῖν συνεχῶς, ἀπορεῖ δὲ ἀντὶ τούτου, εἰ ἐνδέχεται τὸ ἀκίνητον κινεῖν· ‘δοκεῖ γὰρ, φησὶ, τὸ κινοῦν κατὰ τόπον ἢ ὠθοῦν ἢ ἕλκον κινεῖν [*supra*, i. p. 423, n. 1]. εἰ δὲ μὴ μόνον οὕτως, ἀλλ’ οὖν ἁπτόμενόν γε ἢ αὐτὸ ἢ δι’ ἄλλου, ἢ δι’ ἑνὸς ἢ πλειόνων, τὸ δὲ ἀμερὲς οὐδενὸς ἐνδέχεται ἅψασθαι· οὐ γάρ ἐστιν αὐτοῦ τὸ μὲν ἀρχὴ τὸ δὲ πέρας, τῶν δὲ ἁπτομένων τὰ πέρατα ἅμα [*supra*, i. p. 438, n. 1]. πῶς οὖν κινήσει τὸ ἀμερές; καὶ λύει τὴν ἀπορίαν λέγων, ὅτι τὰ μὲν κινούμενα κινεῖ τὰ δὲ ἠρεμοῦντα, καὶ τὰ μὲν κινούμενα κινεῖ ἁπτόμενα ἄλλως [l. ἁπτόμενα, τὰ δὲ ἠρεμοῦντα ἄλλως; BRANDIS, iii. 240, conjectures, ἅπτ. ἄλλα ἄλλως, and SPENGEL, p. 110, ἁπτ. ἄλλων; but the words following show that before the ἄλλως there must be some reference to that which is at rest], οὐχ ὁμοίως δὲ πάντα· οὐ γὰρ ὡς ἡ γῆ τὴν σφαῖραν ῥιφθεῖσαν ἐπ’ αὐτὴν ἄνω ἐκίνει, οὕτως καὶ τὸ πρώτως κινῆσαν· οὐ γὰρ προγινομένης κινήσεως ἐκεῖνο κινεῖ· οὐ γὰρ ἂν ἔτι πρώτως κινοίη· ἡ δὲ γῆ οὐδέποτε ἠρεμοῦσα πρώτως κινήσει. It is the less easy to see any solution of the question in this argument, that the connection of the *primum movens* with the earth is not satisfactory either in itself or on the lines of the Aristotelian system. For in the theory stated by Eudemus the earth does move by contact, and, further, a thing which by its nature is unmoved cannot be taken as analogous to a thing that is at rest, since rest (see *supra*, i. p. 419, n. 5 *ad fin.*) can only be predicated of that which has motion.

[3] It has already been pointed out (*supra*, i. p. 98, n. 1, cf. ii. p. 176, n. 4) that this text is really a work of Eudemus of which only the first three books and the seventh are preserved; and that FISCHER and FRITZSCHE are in error in referring to it book v. 15, and books vi. and vii. of the *Nicomachean Ethics*. *Eth. Eud.* vii. 13–15 (which Fritzsche, with the majority of the MSS., counts as an eighth book) contains certain fragments of a larger tract, the text of which is much injured. There is, however, no doubt that this tract did in fact stand at the end of the *Eudemian*

Ethics proper (as FRITZSCHE, p. 244, says, and BRANDIS, ii. b, 1564–5, proves), and not before bk. vii. as SPENGEL supposed (p. 401–2, of the text cited *supra*, i. p. 98, n. 1), by reason of *M. Mor.* ii. 7 (from 1206, a, 36 onwards) 8, 9.

[1] On the principles set out *supra*, i. p. 362, n. 5, p. 462, n. 3.

[2] In *Eud.* i. 1, 1214, a, 16, it was said that men could become happy either by *μάθησις* or by *ἄσκησις*, or in one of two other ways: *ἤτοι καθάπερ οἱ νυμφόληπτοι καὶ θεόληπτοι τῶν ἀνθρώπων, ἐπιπνοίᾳ δαιμονίου τινὸς ὥσπερ ἐνθουσιάζοντες, ἢ διὰ τύχην.* He goes on in greater detail at *Eud.* vii. 14: with many people almost everything succeeds, however little *φρόνησις* they have (*ἄφρονες ὄντες κατορθοῦσι πολλὰ ἐν οἷς ἡ τύχη κυρία· ἔτι δὲ καὶ ἐν οἷς τέχνη ἐστὶ, πολὺ μέντοι καὶ τύχης ἐνυπάρχει*), and this, on the above principles, is to be attributed, not to chance, but to the *φύσις*, so that such people are not so much *εὐτυχεῖς* as *εὐφυεῖς. τί δὲ δὴ;* [he goes on at 1247, b, 18] *ἆρ’ οὐκ ἔνεισιν ὁρμαὶ ἐν τῇ ψυχῇ αἱ μὲν ἀπὸ λογισμοῦ, αἱ δ’ ἀπὸ ὀρέξεως ἀλόγου, καὶ πρότεραι αὗται; εἰ γάρ ἐστι φύσει ἡ δι’ ἐπιθυμίαν ἡδέος ὄρεξις, φύσει γε ἐπὶ τὸ ἀγαθὸν βαδίζοι ἂν πᾶν. εἰ δή τινές εἰσιν εὐφυεῖς, ὥσπερ οἱ ᾠδικοὶ οὐκ ἐπιστάμενοι ᾄδειν, οὕτως εὖ πεφύκασι καὶ ἄνευ λόγου ὁρμῶσιν, ἀλλ’ ὅτι ἡ φύσις εὖ πέφυκε, καὶ ἐπιθυμοῦσι καὶ τούτου καὶ τότε καὶ οὕτως ὡς δεῖ καὶ οὗ δεῖ καὶ ὅτε, οὗτοι κατορθώσουσι κἂν τύχωσιν ἄφρονες ὄντες καὶ ἄλογοι . . . . ἐκείνους μὲν τοίνυν εὐτυχεῖν διὰ φύσιν ἐνδέχεται. ἡ γὰρ ὁρμὴ καὶ ἡ ὄρεξις οὖσα οὗ ἔδει κατώρθωσεν, ὁ δὲ λογισμὸς ἦν ἠλίθιος.* We may ask, he adds, at *Eud.* 1248, a, 15, *ἆρ’ αὐτοῦ τούτου τύχη αἰτία, τοῦ ἐπιθυμῆσαι οὗ δεῖ καὶ ὅτε δεῖ;* and having, as will be seen presently, answered this in the negative, he adds, at line 24: *τὸ δὲ ζητούμενον τοῦτ’ ἐστὶ, τίς ἡ τῆς κινήσεως ἀρχὴ ἐν τῇ*

that springs from it, however much they may differ in themselves from this unreflecting apprehension of right, point to the same source,[1] since every rational activity presupposes the existence of reason, which must itself be the gift of God.[2] And just as virtue in its origin is referred to God, so God is held to be the ultimate end of all intellectual and moral activity. While Aristotle had described scientific knowledge as the highest intellectual activity and the most essential element in happiness, Eudemus further conceives of this knowledge as the knowledge of God, and accordingly converts Aristotle's proposition that happiness is coextensive with thought (*θεωρία*)[3] into the statement that everything

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ψυχῇ· δῆλον δή, ὥσπερ ἐν τῷ ὅλῳ, θεὸς καὶ ἐν [so *Fr.* for πᾶν] ἐκείνῳ [— ῃ]. κινεῖ γάρ πως πάντα τὸ ἐν ἡμῖν θεῖον. λόγου δ' ἀρχὴ οὐ λόγος ἀλλά τι κρεῖττον. τί οὖν ἂν κρεῖττον καὶ ἐπιστήμης εἴη [καὶ νοῦ, as SPENGEL and FRITZSCHE add] πλὴν θεός; ἡ γὰρ ἀρετὴ τοῦ νοῦ [better, perhaps, ἐκείνου or τοῦ θεοῦ] ὄργανον . . . ἔχουσι γὰρ ἀρχὴν τοιαύτην, ἣ κρείττων τοῦ νοῦ καὶ βουλεύσεως — they hit the right measure without λόγος, not through practice or experience, but τῷ θεῷ. In the same way, adds Eudemus, prophetic dreams are to be explained: ἔοικε γὰρ ἡ ἀρχὴ [Nous as the principle of immediate knowledge] ἀπολυομένου τοῦ λόγοι ἰσχύειν μᾶλλον. Cf. ii. p. 1225, a, 27: the condition of the ἐνθουσιῶντες and προλέγοντες is not a free one, although the resulting activity is rational (διανοίας ἔργον). We find a similar view of τύχη in Aristoxenus.

[1] Since this is without λόγος; see last note, and *Eud. ibid.* 1246, b, 37, 1247, a, 13 sqq.

[2] *Eud. ibid.* 1248, a, 15: in the case of such happily organised natures does the ground of their fortunate φύσις lie in τύχη? ἢ οὕτω γε πάντων ἔσται; καὶ γὰρ τοῦ νοῆσαι καὶ βουλεύσασθαι· οὐ γὰρ δὴ ἐβουλεύσατο βουλευσάμενος [their insight is not the outcome of a previous consideration], ἀλλ' ἔστιν ἀρχή τις, οὐδ' ἐνόησε νοήσας πρότερον νοῆσαι καὶ τοῦτ' εἰς ἄπειρον. οὐκ ἄρα τοῦ νοῆσαι ὁ νοῦς ἀρχὴ, οὐδὲ τοῦ βουλεύσασθαι βουλή. τί οὖν ἄλλο πλὴν τύχη; ὥστ' ἀπὸ τύχης ἅπαντα ἔσται, εἰ ἔστι τις ἀρχὴ ἧς οὐκ ἔστιν ἄλλη ἔξω. αὕτη δὲ διὰ τί τοιαύτη τῷ εἶναι ὥστε τοῦτο δύνασθαι ποιεῖν; τὸ δὲ ζητούμενον, &c. (see last two notes).

[3] *Eth. N.* x. 8; *supra*, ii. p. 143, n. 1. Eudemus shows how exactly he agrees with Aristotle also in the statement (*Eth. Eud.*

is a good in proportion as it leads us to the contemplation of God. All that hinders us on the other hand by reason of excess or defect from the contemplation and worship of God is evil; and it is just this conception which supplies what is wanting in Aristotle, namely a more exact definition of the kind of action that is according to reason. The more persistently we keep that goal in view the less shall we be distracted by the irrational element in the soul.[1] But while the effort after the knowledge

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vii. 12, 1244, b, 23 sqq. 1245, a, 9; cf. *supra*, 200, 5), that life is nothing else than *αἰσθάνεσθαι καὶ γνωρίζειν, ... ὥστε διὰ τοῦτο καὶ ζῆν ἀεὶ βούλεται* [men wish always to live], *ὅτι βούλεται ἀεὶ γνωρίζειν.*

[1] *Eth. Eud.* vii. 15, 1249, a, 21 (probably the conclusion of the whole work): as the doctor has a definite point of view [*ὅρος*], by reference to which he judges what is, and how far anything is, healthy. *οὕτω καὶ τῷ σπουδαίῳ περὶ τὰς πράξεις καὶ αἱρέσεις τῶν φύσει μὲν ἀγαθῶν οὐκ ἐπαινετῶν δὲ δεῖ τινὰ εἶναι ὅρον καὶ τῆς ἕξεως καὶ τῆς αἱρέσεως καὶ περὶ φυγῆς χρημάτων πλήθους καὶ ὀλιγότητος καὶ τῶν εὐτυχημάτων* [l. *καὶ φυγῆς, καὶ περὶ χρημάτων πλῆθος καὶ ὀλιγότητα,* &c.]. *ἐν μὲν οὖν τοῖς πρότερον ἐλέχθη τὸ ὡς ὁ λόγος . . . . τοῦτο δ' ἀληθὲς μὲν, οὐ σαφὲς δέ* [*sup.* ii. p. 163, n. 1] *δεῖ δὴ ὥσπερ καὶ ἐν τοῖς ἄλλοις πρὸς τὸ ἄρχον ζῆν καὶ πρὸς τὴν ἕξιν κατὰ τὴν ἐνέργειαν τὴν τοῦ ἄρχοντος . . . . ἐπεὶ δὲ καὶ ἄνθρωπος φύσει συνέστηκεν ἐξ ἄρχοντος καὶ ἀρχομένου, καὶ ἕκαστον δὲ δέοι πρὸς τὴν ἑαυτῶν ἀρχὴν ζῆν. αὕτη δὲ διττή· ἄλλως γὰρ ἡ ἰατρικὴ ἀρχὴ καὶ ἄλλως ἡ ὑγίεια, ταύτης δὲ ἕνεκα ἐκείνη· οὕτω δ' ἔχει κατὰ τὸ θεωρητικόν. οὐ γὰρ ἐπιτακτικῶς ἄρχων ὁ θεὸς, ἀλλ' οὗ ἕνεκα ἡ φρόνησις ἐπιτάττει (διττὸν δὲ τὸ οὗ ἕνεκα· διώρισται δ' ἐν ἄλλοις), ἐπεὶ ἐκεῖνός γε οὐδενὸς δεῖται.* By this reading, in which the words before and after *διώρισται* are a parenthesis, the argument is that: 'A man should direct his life by that in him which naturally rules; but that is twofold, the active power which determines a man's work, and the end towards which that power works. The former is Reason or *φρόνησις*; the latter is found in the Godhead: and the Godhead as the highest end of our activity rules us; not, however, like a ruler who gives orders for his own ends, since the Godhead has no need of our services; and God is the end, not in the sense in which man is, but in that higher sense in which he can be also the end for all men.' As to this twofold meaning of the *οὗ ἕνεκα* Aristotle had stated his views in his work on Philosophy; but his extant works give us only a few hints, from which we gather that a distinction is to be drawn be-

of God is, according to Eudemus, the ultimate source of all morality, yet the form under which the latter first appears and the principle which gives unity in the first instance to all the virtues is that goodness of disposition which he calls uprightness (*καλοκἀγαθία*), and which consists in the habitual desire for what is absolutely worthy, the noble and the laudable, for its own sake—in other words, in perfected virtue based on love of the good.[1] Aristotle had indeed touched upon this

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tween that which profits by an activity and that which is its final end; cf. *Phys.* ii. 3, 194, a, 35: ἐσμὲν γάρ πως καὶ ἡμεῖς τέλος· διχῶς γὰρ τὸ οὗ ἕνεκα· εἴρηται δ' ἐν τοῖς περὶ φιλοσοφίας. *Metaph.* xii. 7; *supra*, i. p. 355, n. 3, *ad fin.* *De An.* ii. 4, 415, b, 1: πάντα γὰρ ἐκείνου [τοῦ θείου] ὀρέγεται, κἀκείνου ἕνεκα πράττει ὅσα πράττει κατὰ φύσιν. τὸ δ' οὗ ἕνεκα διττὸν τὸ μὲν οὗ τὸ δὲ ᾧ. Eudemus seems, in the passage quoted above, to have this last passage in his mind; even if the words τὸ δ' οὗ ἕν. &c., which recur in line 20, should, as TRENDELENBURG thinks, be rejected. Eudemus then goes on: ἥτις οὖν αἵρεσις καὶ κτῆσις τῶν φύσει ἀγαθῶν ποιήσει τὴν τοῦ θεοῦ μάλιστα θεωρίαν. ἢ σώματος ἢ χρημάτων ἢ φίλων ἢ τῶν ἄλλων ἀγαθῶν, αὕτη ἀρίστη καὶ οὗτος ὁ ὅρος κάλλιστος· ἥτις δ' ἢ δι' ἔνδειαν ἢ δι' ὑπερβολὴν κωλύει τὸν θεὸν θέραπεύειν καὶ θεωρεῖν, αὕτη δὲ φαύλη. ἔχει δὲ τοῦτο [sc. ὁ ἔχων: *i e.* 'but we have this in our soul'] τῇ ψυχῇ καὶ οὗτος τῆς ψυχῆς ὁ [which is not in *Cod. R.* and should be omitted] ὅρος ἄριστος, τὰ [l. τὸ] ἥκιστα αἰσθάνεσθαι τοῦ ἄλλου [*Fr.* rightly ἀλόγου] μέρους τῆς ψυχῆς ᾗ τοιοῦτον.

[1] *Eth. Eud.* vii. 15, *init.*: Having dealt with the several Virtues, we must also consider the whole which is made up by their union. This is καλοκἀγαθία. As the well-being of all parts of the body is the condition of Health, so the possession of all virtues is the condition of Rectitude. It is, however, not the same thing as the mere ἀγαθὸν εἶναι. Only those goods are 'καλὰ,' ὅσα δι' αὑτὰ ὄντα αἱρετὰ (so read with SPENGEL, in lieu of the unmeaning πάντα; cf. *Rhet.* i. 9, *supra*, ii. p. 301, n. 3) ἐπαινετά ἐστιν, and only of the virtues (cf. 1248, b, 36) can this be said. Ἀγαθὸς μὲν οὖν ἐστιν ᾧ τὰ φύσει ἀγαθά ἐστιν ἀγαθά (*v. sup.*, ii. p. 149, n. 3, and *Eth. N.* v. 2, 1129, b, 3), which happens only when the right use is made of these goods (honour, wealth, health, good fortune, &c.); καλὸς δὲ κἀγαθὸς τῷ τῶν ἀγαθῶν τὰ καλὰ ὑπάρχειν αὐτῷ δι' αὑτὰ καὶ τῷ πρακτικὸς εἶναι τῶν καλῶν καὶ αὐτῶν ἕνεκα. If a man proposes to be virtuous, but only for the sake of these natural goods, then he may be indeed ἀγαθὸς ἀνὴρ, but he cannot have καλοκἀγαθία, for he desires the beautiful not for its own

perfect virtue under the name of justice, but only incidentally, and in so far as it presents itself in men's relations to one another:[1] the proper bond of union between the virtues being, in his view, insight.[2] In giving express prominence to the quality of will and disposition which lies at the foundation of all the virtues, Eudemus supplies a lacuna in the Aristotelian account. In effect, however, Aristotle had stated the same principle in his discussion of the essential nature of virtue.[3]

In other respects the Eudemian *Ethics*, so far as it is known to us, differs, like the *Physics*, from the Aristotelian only in individual transpositions, elucidations, and abbreviations, in changes of expression and the meaning of words.[4] Eudemus indeed breaks the close connection between the *Ethics* and the *Politics* by inserting *Economics* as a third science between them.[5] In his *Ethics*, moreover, he gives a more independent place than Aristotle to the cognitive activities and to the corresponding dianoëtic virtues.[6] But these diver-

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sake. To those of whom this latter is true, on the other hand (before καὶ προαιροῦνται, at 1249, a, 3, there seems to be a small *lacuna*), not only the beautiful in itself, but also every other good, comes to be 'beautiful,' because it subserves an end which is the beautiful: ὁ δ' οἰόμενος τὰς ἀρετὰς ἔχειν δεῖν ἕνεκα τῶν ἐκτὸς ἀγαθῶν κατὰ τὸ συμβεβηκὸς τὰ καλὰ πράττει. ἔστιν οὖν καλοκἀγαθία ἀρετὴ τέλειος.

[1] *Supra*, ii. p. 170.

[2] *Supra*, ii. p. 166, n. 1.

[3] *Supra*, ii. p. 154, nn. 3, 4; 155, n. 1; p. 149, n. 3.

[4] With what follows cf. FRITZSCHE, *Eth. Eud.* xxix. sqq. and also see BRANDIS, who at ii. b, 1557 sqq. iii. 240 sqq. has put together the variations of the *Eudemian Ethics* from the *Nicomachean*.

[5] Cf. *sup.*, i. p. 186, n. 4. It will be shown *infra*, in discussing the Pseudo-Aristotelian *Economics*, that it is possible that Eudemus himself wrote a treatise on Economics, and that it may perhaps be preserved to us in bk. i. of that work.

[6] *Supra*, ii. p. 178, n. 1. That EUDEMUS, i. 5, 1216, b, 16, includes the poetical and practical sciences under the term ποιητικαὶ ἐπιστῆμαι, in contradistinction to the theoretical, is unimportant.

gencies have no perceptible influence upon his treatment of ethical questions. The further peculiarities of the Eudemian *Ethics* are still more unessential.[1] On the other hand, the connection of ethics with theology, discussed above, resting though it obviously does upon Aristotelian doctrines, nevertheless presents an unmistakable departure from the spirit of the Aristotelian philosophy and an approach to the Platonic.[1]

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[1] EUD. condenses the opening (*Eth. Nic.* i. 1) into a few words and begins with *Nic.* i. 9, 1099, a, 24; he expressly does away in i. 2, 1214, b, 11 sqq. with the distinction drawn between the constituents and the inseparable conditions of happiness (cf. *supra*, ii. p. 150, n. 1; i. p. 360, n. 1): he expands in i. 5 *Nic.* i. 3 (partly by using *N.* vi. 13; *v. supra*, ii. p. 158, n. 2); inserts in i. 6 methodological observations which are in fact entirely in agreement with Aristotle's views; extends in c. 8 the discussion of the Idea of the Good out of *Nic.* i. 4 with certain general observations; omits the inquiry in *Nic.* i. 10–12 (cf. *supra*, ii. p. 144 foll.) and modifies the argument of *Nic.* i. 8–9 by combining it with what goes before. In the discussion of the nature of Virtue, *Eth. Eud.* ii. 1, 1218, a, 31–1219, b, 26 is Aristotelian matter (*Nic.* i. 6, x. 6 *init.* i. 11 *init.* i. 13, 1102, b, 2 sqq.) freely worked up; what follows is more closely connected with *Nic.* i. 13; and ii. 2 follows *Nic.* ii. 1; so ii. 3 is *Nic.* ii. 2, 1104, a, 12 sqq. ii. 5, 1106, a, 26, ii. 8 *init.*; the sketch of the virtues and vices 1220, b, 36 sqq. (which seems, however, to include later additions: see FRITZSCHE, *ad loc.*) follows *Nic.* ii. 7; 1221, b, 9 sqq. rests on *Nic.* iv. 11, 1126, a, 8 sqq. With *Eud.* ii. 4, cf. *Nic.* ii. 2, 1104, b, 13 sqq. and c. 4 *init. Nic.* ii. 1 (genesis of virtue by virtuous acts) is passed over, and *Nic.* ii. 5 (virtues are neither δυνάμεις nor πάθη, therefore ἕξεις) is hardly touched; that virtue was, however, called not merely ἕξις (*Eud.* ii. 5, c. 10, 1227, b, 8, &c.), but also διάθεσις (ii. 1, 1218, b, 38, 1220, a, 29) is nothing. *Eud.* ii. 5 is in essence taken from *Nic.* ii. 8. The inquiry as to free will, &c., is opened by Eudemus, ii. 6, with an introduction which is peculiar to him, after which he gives, at c. 7–10, in a free selection and order the main points of the Aristotelian argument in *Nic.* iii. 1–7 (cf. BRANDIS, ii. b, 1388 sqq.), and closes in c. 11 with the question (which is not put by, but for the solution of which *Nic.* iii. 5, 1112, b, 12 sqq. is used) whether it is will (προαίρεσις) or insight (λόγος) that virtue directs aright? Eudemus decides for the former, because the main question in virtue is the end of our action, and this is determined by the will; whereas the protection of our power of insight from distortion by desire is the business of ἐγκράτεια, which is a praiseworthy quality, but is to be distinguished from ἀρετή. In the treatment of the specific virtues Eudemus follows his master, with unimportant variations, as follows: iii. 1 (ἀνδρεία) is *Nic.* iii. 8–12; iii. 2 (σωφροσύνη) is *Nic.* iii. 13–15; then we pass (c. 3) to πραότης (*Nic.* iv. 11), and next (c. 4) to ἐλευθεριότης (*N.* iv. 1–3), and in c. 5 to μεγαλοψυχία (*N.* iv. 7–9), and c. 6 to μεγαλοπρέπεια (*N.* iv. 4–6). These are generally abbreviated, and show only a few explanatory additions.

With the religious attitude which characterised Eudemus, the naturalism of his fellow-disciples Aristoxenus and Dicæarchus stands in striking contrast. The former of these,[2] who, before he became acquainted with Ari-

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Finally, in c. 7 (cf. *N.* iv. 12–15, and *supra*, i. p. 169) Eudemus deals with *νέμεσις, αἰδὼς, φιλία, σεμνότης* (absent in *Nic.*), *ἀλήθεια* and *ἁπλότης*, and *εὐτραπελία*, all of which, with a certain variance from Aristotle, he treats as laudable qualities, but not as virtues in the strict sense, as being merely *μεσότητες παθητικαὶ* or *φυσικαὶ ἀρεταὶ* (1233, b, 18, 1234, a, 23 sqq.), because they do not involve a *προαίρεσις*. *Φιλοτιμία* (*Nic.* iv. 10) is passed over; and for certain virtues left without a name by Aristotle (*φιλία* and *ἀλήθεια*) Eudemus, as usual, has a technical term—a note of the later date of his book. The three following books we possess only (*v. supra*, i. p. 98, n. 1) in the Aristotelian orginal. The seventh has in c. 1–12 chiefly an original restatement of the matter of the inquiry as to Friendship (in *Nic.* viii. ix.) so constructed that new ideas only appear in minor points, and contradictions of the Aristotelian teaching never. The three final chapters of this book (more correctly bk. viii.) have been already dealt with, *supra*, ii. p. 422, n. 3.

[1] With Eudemus in this connection should be named his nephew Pasicles (*ap.* PHILOP. 'Pasicrates'), who is also called a scholar of Aristotle, if it be true (according to the views set out *supra*, vol. i. p. 79) that he was the author of bk. ii. (α) of the *Metaphysics*. See c. 1, 993, a, 9: *ὥσπερ γὰρ καὶ τὰ τῶν νυκτερίδων ὄμματα πρὸς τὸ φέγγος ἔχει τὸ μεθ' ἡμέραν, οὕτω καὶ τῆς ἡμετέρας ψυχῆς ὁ νοῦς πρὸς τὰ τῇ φύσει φανερώτατα πάντων*, and cf. with this PLATO, *Rep.* vii. *init.* Otherwise the contents of this book show no remarkable peculiarity.

[2] For the life and works of Aristoxenus see MAHNE, *De Aristoxeno*, Amsterd. 1793, and MÜLLER, *Fragm. Hist. Gr.* ii. 269 sqq., where the Fragments are collected. He was born at Tarentum (SUID. Ἀριστόξ.; STEPHANUS BYZ. *De Urb.* Τάρας), and was the son of Spintharus (DIOG. ii. 20, SEXT. *Math.* vi. 1; as to his alleged second name, 'Mnesias' *apud* SUID., see MÜLLER, p. 269), who was a celebrated musician (ÆLIAN, *H. Anim.* ii. 11, p. 34, Jac.). He learned also, according to SUID. from the musician Lamprus (*de*

stotle, had been a student of the Pythagorean philosophy, acquired by his writings on music [1] the highest reputation among musicians of antiquity,[2] and what we know of his works amply justifies his fame. While far outstripping all his predecessors in the completeness of

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quo v. MAHNE, p. 12; cf. ZELL. *Ph. d. Gr.* i. p. 45, n. 3), from the Pythagorean Xenophilus (*ibid.* i. p. 310, n. 5), and from Aristotle. As a scholar of Aristotle, he is named by CIC. *Tusc.* i. 18, 41, and GELL. *N. A.* iv. 11, 4. He himself refers in *Harm. Elem.* p. 30 (ZELL. *ibid.* p. 596, n. 3), to an oral statement of Aristotle's, and at p. 31 of the same he relates that Aristotle used, in his lecturing, to give out beforehand the subject and general lines of his discussion. SUIDAS relates that, being one of the most notable of Aristotle's scholars, he had expectations of becoming his successor, and that when this did not come about he abused Aristotle after his death. ARISTOCLES, however (*supra*, i. p. 11, n. 1, p. 12, n. 1), refutes the last suggestion, and possibly it was merely the statement cited on p. 11, n. 1 (which refers really to another person), that started the story. We learn further that Aristoxenus lived at first, probably in his youth, at Mantinea, and that he was a friend of Dicæarchus (CIC. in *Tusc.* i. 18, 41, calls him his 'æqualis et condiscipulus,' and in *Ad Att.* xiii. 32, he mentions a letter then extant from Dicæarchus to Aristox.). We know not on what grounds LUCIAN'S story, *Paras.* 35, rests, that he was a 'parasite' of Neleus (? Neleus of Scepsis; but he is of too late a date; *supra*, i. p. 137, n. 1, p. 139, n. 3). In any case, we cannot rely on it. The period of the life of Aristox., of which we cannot fix either limit, is broadly determined by his relations to Aristotle and Dicæarchus: when CYRILL. *C. Jul.* 12 C, places him in Ol. 29 he is confusing him (see MAHNE, 16) with the much earlier Selinuntian poet; he is, however, more correct in 208, B, when he calls him younger than Menedemus of Pyrrha (ZELL. *Ph. d. Gr.* p. 365, n. 2, p. 837).

[1] The list of those known to us, in MÜLLER, p. 270, includes eleven works, some of them in several books, on Music, Rhythm, &c., and also on the Musical Instruments. We still possess the three books *π. ἁρμονικῶν στοιχείων*, a large fragment of the *π. ῥυθμικῶν στοιχείων*, and other fragments (*ap.* MAHNE, p. 130 sqq. and MÜLLER, p. 283 sqq.). For the literature covering Aristoxenus's harmonic and rhythmic theories, see UEBERWEG, *Grundr.* i. 216.

[2] Ὁ *Μουσικὸς* is his regular description. As the chief authority on music, ALEX. in *Top.* 49 classes him with the great men of medicine and mathematics, Hippocrates and Archimedes. Cf. also PLUT. *sup.* ii. p. 415, n. 1;

his investigations.[1] he was distinguished also in a high degree by the strictness of his method,[2] by the accuracy of his definitions, and by the thoroughness of his musical knowledge. He occupied himself besides with questions of natural science, psychology, ethics, and politics,[3] as well as with arithmetic[4] and with historical sketches.[5] Of the reliability of these last, however, his fabulous statements about Socrates and Plato,[6] obviously inspired in part by a depreciatory motive, give us anything but a favourable impression.[7]

The views of Aristoxenus, so far as they are known to us, exhibit a union of the severe morality of the Pythagoreans with the scientific empiricism of the Peri-

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CIC. *Fin.* v. 19, 50, *De Orat.* iii. 33, 132; SIMPL. *Phys.* 193, a; VITRUV. i. 14, v. 4.

[1] He frequently himself calls attention, with a certain pride, to the number and importance of the inquiries which he was the first to undertake: *e.g.* in *Harm. El.* pp. 2–7, 35–37, &c.

[2] It is his custom to preface each inquiry by a statement as to the procedure to be followed, and an outline of the argument, so that the reader may be clear as to the way which lies before him, and the exact point at which he finds himself; *Harm. El.* p. 30–1, 3–8, p. 43–4.

[3] His works of ethical interest included, not only the **Πυθαγορικαὶ ἀποφάσεις** but also a great part of his historical writings about the Pythagoreans. Besides these, we hear of his **νόμοι παιδευτικοὶ** and **νόμοι πολιτικοί**. The books about the Pythagoreans may have contained the passages concerning the soul cited in the following notes, since they are closely connected with Pythagorean views. From the *σύμμικτα ὑπομνήματα*, we have in MÜLLER, 290–1, extracts which relate to natural history.

[4] In the Fragm. from the *π. ἀριθμητικῆς*, STOB. *Ecl.* i. 16.

[5] He composed a History of Harmonics (cited in *Harm. El.* p. 2) a work on Tragic Poets, another on Flute-players, and also a work called *βίοι ἀνδρῶν* which dealt apparently with all the famous Philosophers down to Aristotle; and also the *ὑπομνήματα ἱστορικὰ*, from which we have citations referring to Plato and Alexander the Great. In his other books also there was no doubt much historical matter.

[6] Cf. ZELL. *Ph. d. Gr.* i. pp. 48, 51, 2, 54, 6, 59 sqq. 342, 372, 1, 373, 6, and the story cited by LUCIAN, *Paras.* 35 from Aristoxenus as to Plato's Sicilian journeys.

[7] Generally speaking, the reputation for learning which CIC. *Tusc.* i. 18, 41; GELL. iv. 11, 4; HIERON. *Hist. Eccl.* Præf. accord

patetics. Of a stern and ascetic disposition,[1] although a Peripatetic, he found himself so completely in agreement with the ethical teaching of the Pythagoreans, that he puts his own views into the mouth of philosophers of this school.[2] The views he attributes to Pythagoreans commendatory of piety, moderation, gratitude, fidelity to friends, respect to parents, strict obedience to law, and a careful education of the young,[3] while harmonising with the inner spirit of Pythagorean ethics, at the same time unquestionably express his own opinion. Similarly he connects himself with Pythagoreanism in going a step beyond Eudemus,[4] and referring good fortune partly to a natural gift and partly to divine inspiration.[5] Even in his views upon music the same tendency asserts itself. He attributes to music, as Aristotle, following the Pythagoreans, had

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him, may be as well deserved as the reputation for style which CIC. *Ad Att.* viii. 4 concedes to both Aristoxenus and Dicaearchus.

[1] So at least we are told: ÆLIAN, *V.H.* viii. 13, calls him *τῷ γέλωτι ἀνὰ κράτος πολέμιος*, and ADRAST. *ap.* PROCL. *in Tim.* 192 A. says of him: *οὐ πάνυ τὸ εἶδος ἀνὴρ ἐκεῖνος μουσικὸς, ἀλλ' ὅπως ἂν δόξῃ τι καινὸν λέγειν πεφροντικώς.*

[2] We must assume that he himself composed, or so far as he took them from ancient sources, at least fully accepted, such Pythagorean sayings as those in the Life of Archytas cited *infra*, in the following notes.

[3] In this connection, cf. the Fragm. quoted in ZELL. *Ph. d. Gr.* i. 428–9, and that *apud* STOB. *Floril.* x. 67 (see MÜLLER, *ibid. Fr.* 17), concerning artificial, natural and morbid desires, and the Fragm. given by ATHEN. xii. 545, a, out of the Life of Archytas (*Fr.* 16), of which, however, he has given only the first half, *i.e.* the speech of Polyarchus in praise of pleasure, while its refutation by Archytas, which must have followed, is not quoted.

[4] *Supra*, ii. p. 422 foll.

[5] *Fr.* 21 *ap.* STOB. *Ecl.* i. 206 (taken from the *πυθ. ἀποφάσεις*): *περὶ δὲ τύχης τάδ' ἔφασκον· εἶναι μέντοι* [WYTT. conj. *μέν τι*] *καὶ δαιμόνιον μέρος αὐτῆς, γενέσθαι γὰρ ἐπίπνοιάν τινα παρὰ τοῦ δαιμονίου τῶν ἀνθρώπων ἐνίοις ἐπὶ τὸ βέλτιον ἢ ἐπὶ τὸ χεῖρον, καὶ εἶναι φανερῶς κατ' αὐτὸ τοῦτο τοὺς μὲν εὐτυχεῖς τοὺς δὲ ἀτυχεῖς*, as may be seen by the

also done, a moral and educative,[1] and at the same time a purifying, effect, inasmuch as it calms emotion and alleviates morbid states of feeling.[2] But while insisting that music in this aspect should be permitted to retain its original dignity and severity, he holds that the same demand is made by its character as art; and accordingly we find him bitterly complaining of the effeminacy and barbarism which in the music of his time had usurped the place of the earlier classic style.[3] Neverthe-

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fact that the former without any judgment reach a fortunate result, and the latter with every care do not. *εἶναι δὲ καὶ ἕτερον τύχης εἶδος, καθ' ὃ οἱ μὲν εὐφυεῖς καὶ εὔστοχοι, οἱ δὲ ἀφυεῖς τε καὶ ἐναντίαν ἔχοντες φύσιν βλάστοιεν*, &c.

[1] STRABO, i. 2, 3, p. 15–6: Poetry as an instrument in education acts not by *ψυχαγωγία*, but for *σωφρονισμὸς*; even the musicians *μεταποιοῦνται τῆς ἀρετῆς ταύτης· παιδευτικοὶ γὰρ εἶναί φασι καὶ ἐπανορθωτικοὶ τῶν ἠθῶν*, as, following the Pythagoreans, Aristoxenus said also. Cf. *Fr.* 17, a (STOB. *Floril.* v. 70, taken from the *πυθ. ἀποφ.*): the true *φιλοκαλία* is not concerned with the outward adornment of life, but consists in a love for the *καλὰ ἔθη ἐπιτηδεύματα* and *ἐπιστῆμαι*. *Harm. El.* 31: *ἡ μὲν τοιαύτη* [*μουσικὴ*] *βλάπτει τὰ ἤθη, ἡ δὲ τοιαύτη ὠφελεῖ*—but we must not on that account demand of Harmonics, which is only a part of the science of *μουσικὴ*, that it should make people morally better. The moral effect of music is referred to in the remark of Aristotle, *ap.* PLUT. *Mus.* c. 17, 1136, e, in opposition to Plato's preference for the Dorian tones: and the matter cited by ORIGENES *ap.* PROCL. *in Tim.* 27 C, from Aristoxenus also belongs to this subject.

[2] MARC. CAPELLA, ix. 923 (*Fr.* 24): Aristox. and the Pythagoreans believed that the 'ferocia animi' can be softened by music. CRAMER, *Anecd. Paris.* i. 172, the Pythagorean, according to Aristox., used for the purification of the body *ἰατρικὴ*, and for that of the soul *μουσική*. PLUT. *Mus.* c. 43, 5, p. 1146–7: Arist. said *εἰσάγεσθαι μουσικὴν* [at banquets] *παρ' ὅσον ὁ μὲν οἶνος σφάλλειν πέφυκε τῶν ἄδην αὐτῷ χρησαμένων τά τε σώματα καὶ τὰς διανοίας. ἡ δὲ μουσικὴ τῇ περὶ αὐτὴν τάξει τε καὶ συμμετρίᾳ εἰς τὴν ἐναντίαν κατάστασιν ἄγει τε καὶ πραΰνει.* Aristox himself is said by APOLLON. *Mirab.* c. 49 (who cites as his authority Theophrastus) to have cured by music a man afflicted with a mental ailment.

[3] THEMIST. *Or.* xxxiii. p. 364: *Ἀριστόξ ὁ μουσικὸς θηλυνομένην ἤδη τὴν μουσικὴν ἐπειρᾶτο ἀναρρωνύναι, αὐτός τε ἀγαπῶν τὰ ἀνδρικώτερα τῶν κρουμάτων, καὶ τοῖς μαθη-*

less Aristoxenus confronts his Pythagorean predecessors as the founder of a school which remained opposed to theirs down to the latest ages of antiquity.[1] He reproaches them, not only with their imperfect treatment of the subject,[2] but also with their capricious method of procedure: since, instead of following the guidance of facts, they had, as he believed, imposed certain *a priori* presuppositions upon them. He himself demands, indeed, as opposed to an unscientific empiricism, principles and proofs; but he starts from the data of experience, and refuses to seek for the essence and causes of that which perception reveals to us in any other field than that which these supply.[3] In order,

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ταῖς ἐκκελεύων τοῦ μαλθακοῦ ἀφεμένους φιλεργεῖν τὸ ἀρρενωπὸν ἐν τοῖς μέλεσιν; whereon follows an attack on the theatre music of his own time. Aristox. himself says in *Fr.* 90 (*ap.* ATHEN. xiv. 632, a): as the people of the Italian Posidonia, who were first Greeks and now Tyrrheneans or Romans, still celebrate yearly the Hellenic festival of sorrow because they have become barbarians, *οὕτω δὴ οὖν, φησί, καὶ ἡμεῖς, ἐπειδὴ καὶ τὰ θέατρα ἐκβαρβάρωται καὶ εἰς μεγάλην διαφθορὰν προελήλυθεν ἡ πάνδημος αὕτη μουσική, καθ' αὑτοὺς γενόμενοι ὀλίγοι ἀναμιμνησκόμεθα οἵα ἦν ἡ μουσική.* Cf. also *Harm. El.* 23, and the remarks *apud* PLUT. *Qu. Conv.* vii. 8. 1, 4, p. 711 C, where Aristox. calls his opponents *ἄνανδροι καὶ διατεθρυμμένοι τὰ ὦτα δι' ἀμουσίαν καὶ ἀπειροκαλίαν*, and *De Mus.* c. 31, p. 1142, where he tells a contemporary how ill it becomes him to conform to the taste of the day.

[1] Cf. as to this opposition of the Pythagoreans or Harmonists, and the Aristoxenians, whose differences Ptolemæus seeks to solve, BOJESEN, *De Harmon. Scientia Graec.* (Hafn. 1833) p. 19 sqq. and the citations there from PTOLEMÆUS, *Harm.* i. (c. 2, 9, 13, &c.), PORPHYR. in *Ptol. Harm.* (Wallis. *Opp.* iii.) 189, 207, 209–10, CÆSAR, *Grundz. der Rhythmik*, 22–3.

[2] *Supra*, vol. ii. p. 431, n. 1.

[3] *Harm. El.* 32: *φυσικὴν γὰρ δή τινα φαμὲν ἡμεῖς τὴν φωνὴν κίνησιν κινεῖσθαι, καὶ οὐχ ὥς ἔτυχε διάστημα τιθέναι. καὶ τούτων ἀποδείξεις πειρώμεθα λέγειν ὁμολογουμένας τοῖς φαινομένοις, οὐ καθάπερ οἱ ἔμπροσθεν, οἱ μὲν ἀλλοτριολογοῦντες καὶ τὴν μὲν αἴσθησιν ἐκκλίνοντες, ὡς οὖσαν οὐκ ἀκριβῆ, νοητὰς δὲ κατασκευάζοντες αἰτίας, καὶ φάσκοντες λόγους τέ τινας ἀριθμῶν εἶναι καὶ τάχη πρὸς ἄλληλα, ἐν οἷς τό τε ὀξὺ καὶ βαρὺ γίνεται, πάντων ἀλλοτριωτάτους λόγους λέγοντες καὶ ἐναντιωτάτους τοῖς φαινομένοις·*

moreover, to establish his conclusions upon an independent basis, he excludes on principle all those which might be borrowed from another science: the theory of music, he holds, must be limited to its own proper field, but it must completely exhaust it.[1]

We cannot here enter more fully into Aristoxenus's theory of music, and must be content with the statement of its most general principles as an indication of its character and tendency.[2]

οἱ δὲ ἀποθεσπίζοντες ἕκαστα ἄνευ αἰτίας καὶ ἀποδείξεως, οὐδὲ αὐτὰ τὰ φαινόμενα καλῶς ἐξηριθμηκότες. ἡμεῖς δὲ ἀρχάς τε πειρώμεθα λαβεῖν φαινομένας ἁπάσας τοῖς ἐμπείροις μουσικῆς καὶ τὰ ἐκ τούτων συμβαίνοντα ἀποδεικνύναι . . . . ἀνάγεται δ' ἡ πραγματεία εἰς δύο· εἴς τε τὴν ἀκοὴν καὶ εἰς τὴν διάνοιαν. τῇ μὲν γὰρ ἀκοῇ κρίνομεν τὰ τῶν διαστημάτων μεγέθη. τῇ δὲ διανοίᾳ θεωροῦμεν τὰς τούτων δυνάμεις. Music is not like Geometry. The latter has no need of observation; *τῷ δὲ μουσικῷ σχεδόν ἐστιν ἀρχῆς ἔχουσα τάξιν ἡ τῆς αἰσθήσεως ἀκρίβεια*, p. 38, *ad fin.*: *ἐκ δύο γὰρ τούτων ἡ τῆς μουσικῆς σύνεσίς ἐστιν, αἰσθήσεώς τε καὶ μνήμης.* P. 43, *ad fin.*: three things are needful—right apprehension of the phenomena, right arrangement of them, and right conclusions from them. As to the somewhat hostile criticisms of later writers, such as PTOLEMÆUS (*Harm.* i. 2, 13), PORPHYR. (in *Ptol. Harm.* Wallis. *Opp.* iii. 211), and BOETHIUS (*De Mus.* 1417, 1472, 1476) upon the method of Aristoxenus, see MAHNE, p. 167 sqq. BRANDIS, iii. 380–1.

[1] *Harm. El.* 44: Harmonics must begin with data which are immediately established by perception. *καθόλου δὲ ἐν τῷ ἄρχεσθαι παρατηρητέον, ὅπως μήτ' εἰς τὴν ὑπερορίαν ἐμπίπτωμεν, ἀπό τινος φωνῆς ἢ κινήσεως ἀέρος ἀρχόμενοι, μήτ' αὖ κάμπτοντες ἐντὸς* [narrowing the bounds of our knowledge] *πολλὰ τῶν οἰκείων ἀπολιμπάνωμεν.* In fact, however, Aristox. does not go into the physical inquiries as to the nature of tones; see next note, and cf. *ibid.* pp. 1 and 8.

[2] The basis on which Aristox. proceeds in his *Harmonics* is the human voice (cf. *Harm. El.* 19, 20, and CENSORIN. c. 12, who says that Aristox. held that music consisted 'in voce et corporis motu'—but he cannot conclude from this that he considered it to consist merely in this and to have no deeper basis, especially as this would be in contradiction with the quotation *supra*, vol. ii. p. 432, n. 5, and as CENSORIN. in the same passage, says of Socrates also that, according to him, music was 'in voce tantummodo'). The voice has two kinds of movement: that of speech and that of song. For speech it

Aristoxenus further described the Soul as a harmony, and more definitely as the harmony of the Body. The activities of the soul were held by him to spring from the concurrent movements of the bodily organs as their

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has a continuous motion; for song a movement of intervals (*κίνησις συνεχὴς* and *διαστηματικὴ*): that is, in speech we have a continual change of tone, while in singing each tone is held for a certain time at the same level (*ibid.* p. 2, 8). Whether a tone is in itself a form of motion or no, Aristox. says he will not inquire (*ibid.* p. 9, 12); he says a tone is 'at rest' so long as it does not change its note, but allows that this may be an actual rest or may be merely a sameness of motion (*ὁμαλότης κινήσεως ἢ ταὐτότης*); nor will he go into the question whether the voice really can hold exactly the same note, for it is enough that it appears to us to do so. *ἁπλῶς γὰρ, ὅταν ἂν οὕτω κινῆται ἡ φωνὴ, ὥστε μηδαμοῦ δοκεῖν ἵστασθαι τῇ ἀκοῇ, συνεχῆ λέγομεν ταύτην τὴν κίνησιν, ὅταν δὲ στῆναί που δόξασα εἶτα πάλιν διαβαίνειν τινὰ τόπον φανῇ, καὶ τοῦτο ποιήσασα πάλιν ἐφ' ἑτέρας τάσεως* [level of tone] *στῆναι δόξῃ, καὶ τοῦτο ἐναλλὰξ ποιεῖν φαινομένη συνεχῶς διατελῇ, διαστηματικὴν τὴν τοιαύτην κίνησιν λέγομεν.* The result of this must be a bad 'circulus in definiendo,' by which the *ἐπίτασις φωνῆς* is defined as a movement of the voice from a low to a high note, and the *ἄνεσις φωνῆς* a movement from a high to a low one, while *ὀξύτης*, conversely, is defined as *τὸ γενόμενον διὰ τῆς ἐπιτάσεως*, and *βαρυτης* as *τὸ γενόμενον διὰ τῆς ἀνέσεως* (p. 10). Again, the lesser *δίεσις* (quarter tone) is given as the smallest perceptible and stateable difference of tone (pp. 13–4), while the greatest which can be represented by the human voice or by any single instrument is said to be the *διὰ πέντε καὶ δὶς διὰ πασῶν* (= two octaves and a fifth) (p. 20). The notions of tone and interval are defined (p. 16–7), and the different tone-systems are given (p. 17–8) with the statement that of these the diatonic is the most original, the chromatic the next, and the enharmonic the last, so that the ear is with difficulty accustomed to it (p. 19), &c. The further course of the inquiry cannot be followed here. That Aristox. (as in *Harm.* pp. 24, 45–46) fixed the compass of the fourth at two and a half, of the fifth at three and a half, and of the octave at six tones, whereas the true compass is rather less, because the half-tones of the fourth and fifth are not a full half, is matter of criticism in PTOLEM. *Harm.* i. 10; BOETH. *De Mus.* 1417; CENSORIN. *Di. Nat.* 10, 7. Cf. also PLUT. *An. Procr.* c. 17, p. 1020–1 (where the *ἁρμονικοὶ* are the followers of Aristox., elsewhere called *ὀργανικοὶ* or *μουσικοὶ*). It is possible that in his treatment of rhythm Aristox. also treated of the letters of the alphabet as the elements of speech; see DIONYS. *Comp. Verb.* p. 154.

common product; a disturbance in one of these parts, which destroys the concord of their movements, causes the extinction of consciousness—in other words, death.[1] In this doctrine he only followed a view which had been already adopted by others—probably Pythagoreans—before him.[2] It would commend itself all the more to him as an empiric in that it offered an explanation of the soul which harmonised with his views upon music. Just as in music he confines himself to the facts of experience, so in treating of the life of the soul he confines himself strictly to its sensible manifestations; and just as there he sees harmony arising from the concurrence of particular sounds, so he holds that the soul originates in the concurrence of bodily movements.

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[1] CIC. *Tusc.* i. 10, 20: 'Aristox. . . . ipsius corporis intentionem [*τόνος*] quandam [animam dixit]; velut in cantu et fidibus quæ harmonia dicitur, sic ex corporis totius natura et figura varios motus cieri, tanquam in cantu sonos.' Cf. c. 18, 41, where, on the other hand, we are told: 'membrorum vero situs et figura corporis vacans animo quam possit harmoniam efficere, non video.' C. 22, 51: 'Dicæarchus quidem et Aristox. . . . nullum omnino animum esse dixerunt.' LACTANT. *Instit.* vii. 13 (perhaps also following Cicero): 'quid Aristox., qui negavit omnino ullam esse animam, etiam cum vivit in corpore?'—but held that as harmony is engendered out of the tension of strings, 'ita in corporibus ex compage viscerum ac vigore membrorum vim sentiendi existere.' LACT. *Opif. D.* c. 16: 'Aristox. dixit, mentem omnino nullam esse, sed quasi harmoniam in fidibus ex constructione corporis et compagibus viscerum vim sentiendi existere . . . scilicet ut singularum corporis partium firma conjunctio membrorumque omnium consentiens in unum vigor motum illum sensibilem faciat animumque concinnet, sicut nervi bene intenti conspirantem sonum. Et sicuti in fidibus, cum aliquid aut interruptum aut relaxatum est, omnis canendi ratio turbatur et solvitur, ita in corpore, cum pars aliqua membrorum duxerit vitium, destrui universa, corruptisque omnibus et turbatis occidere sensum eamque mortem vocari.'

[2] ZELL. *Ph. d. Gr.* i. 413. Aristox. probably stated this view in his books on the Pythagoreans; but what is quoted from him by JAMBL. *Theol. Arithm.* p. 41, as to the Metempsychosis of Pythagoras does not prove that Aristox. himself believed in that doctrine.

Along with Aristoxenus his friend and fellow-disciple[1] Dicæarchus of Messene[2] is usually classed, on account of his views upon the nature of the soul,[3] which he appears to have made even more expressly and thoroughly the subject of his investigations.[4] He also held that the soul has no absolute independent existence of its own, but is merely the result of the mixture of material constituents, being in fact nothing else than the harmonious union of the four elements in a living body: only as it is united to the body accordingly and diffused through all its parts does the soul partake of reality.[1] It was only, therefore, to be expected that he should from this point of view vigorously combat the belief in immortality.[2] It is more surprising to be told that he believed in revelations through dreams and ecstatic states.[3] These, however, he was doubtless able, like Aristotle,[1] to reconcile with his doctrine of the soul by means of a natural explanation.[2] That he was no friend of divination and the priestly arts of prophecy can easily be gathered from the fragments of his work upon the Cave of Trophonius.[3]

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[1] As to this, see CIC. *Tusc.* i. 18, *Ad Att.* xiii. 32, and *supra*, vol. ii. p. 429, n. 2.

[2] According to SUID. *s. v.*, he was the son of Phidias, born at Messene in Sicily, a scholar of Aristotle, a philosopher, a rhetorician and a geometrician. He is often called a Messenian and a scholar of Aristotle (*e.g.* CIC. *Legg.* iii. 6, 14; ATHEN. xi. 460–1, xv. 666, b and a). Why THEMISTIUS names him among the traducers of Aristotle (*supra*, vol. i. p. 40, n. 1), it is difficult to say; for neither the circumstance referred to by MÜLLER (*Fragm. Hist. Gr.* ii. 225–6) that he gave more importance to the practical life than Aristotle did (see below), nor the fact (which OSANN, p. 46, connects with this accusation) that Dicæarchus departed from Aristotle's teaching as to the soul, has anything to do with their *personal* relations, of which THEMIST. is speaking. It is possible that THEMIST. or his copyists have inserted the wrong name: Demochares, for example, might be suggested instead.—We have no further information about Dicæarchus, except that he lived in the Peloponnesus (CIC. *Ad Att.* vi. 2) and that he was employed by the Macedonian kings to measure the heights of mountains (PLIN. *H. Nat.* ii. 65, 162), which work we know that he did in the Peloponnesus, for SUIDAS ascribes to him *καταμετρήσεις τῶν ἐν Πελοποννήσῳ ὀρῶν.* His learning is praised by PLIN. (*loc. cit.*), by CIC. *Ad Att.* ii. 2 and elsewhere, and by VARRO, *De R. R.* i. 1 (cf. MÜLLER, *ibid.* p. 226). His dates of birth and death cannot be exactly determined. As to his life and writings, see OSANN, *Beitr.* ii. 1–119; FUHR, *Dicæarchi Messen. quæ supersunt* (Darmst. 1841); MÜLLER, *Fragm. Hist. Gr.* ii. 225 sqq., from whom the Fragments hereafter cited are taken.

[3] CIC. *Tusc.* i. 18, 41, 22, 51.

[4] We know from CIC. *Ad Att.* xiii. 32, *Tusc.* i. 10, 21, 31, 77; PLUT. *Adv. Col.* 14, 2, p. 1115, that he wrote two works on the soul, which were dialogues, one laid at Corinth, the other in Lesbos. Whether with either of these (OSANN, 40-1, suggests the **Κορινθιακὸς**) the work *De Interitu Hominum* (CIC. *Off.* ii. 5, 16; *Consol.* ix. 351) was identical must remain an unsolved problem; but it seems improbable.

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[1] CIC. *Tusc.* i. 10, 21: Dic. makes a certain Pherecrates maintain, 'nihil esse omnino animum et hoc esse nomen totum inane . . . neque in homine inesse animum vel animam nec in bestia; vimque omnem eam, qua vel agamus quid vel sentiamus [*κίνησις* and *αἴσθησις* were already indicated by ARIST. *De An.* i. 2, 403, b, 25, as the distinguishing marks of the *ἔμψυχον*], in omnibus corporibus vivis æquabiliter esse fusam, nec separabilem a corpore esse, quippe quæ nulla sit [cf. 11, 24. nihil omnino animum dicat esse], nec sit quidquam nisi corpus unum et simplex [the body alone], ita figuratum ut temperatione naturæ vigeat et sentiat;' *Ibid.* 18, 41: '[Dic.] ne condoluisse quidem unquam videtur, qui animum se habere non sentiat;' 22, 51 (*v. supra*, vol. ii. p. 437, n. 1, and *Acad.* ii. 39, 124). SEXT. says he taught *μὴ εἶναι τὴν ψυχὴν* (*Pyrrh.* ii. 31), *μηδὲν εἶναι αὐτὴν παρὰ τὸ πῶς ἔχον σῶμα* (*Math.* vii. 349). ATTICUS, *ap.* EUS. *Praep. Ev.* xv. 9, 5: *ἀνῄρηκε τὴν ὅλην ὑπόστασιν τῆς ψυχῆς.* JAMBL. *ap.* STOB. *Ecl.* i. 870: the soul was, according to Dicæarchus, *τὸ τῇ φύσει συμμεμιγμένον, ἢ τὸ τοῦ σώματος ὂν, ὥσπερ τὸ ἐμψυχῶσθαι· αὐτῇ δὲ μὴ παρὸν τῇ ψυχῇ ὥσπερ ὑπάρχον.* (?) SIMPL. *Categ. Schol. in Ar.* 68, a, 26: *Δικ. . . . τὸ μὲν ζῷον συνεχώρει εἶναι, τὴν δὲ αἰτίαν αὐτοῦ ψυχὴν ἀνῄρει.* NEMES. *Nat. Hom.* p. 68: *Δικαίαρχος δὲ* [*τὴν ψυχὴν λέγει*] *ἁρμονίαν τῶν τεσσάρων στοιχείων* (so also PLUT. *Plac.* iv. 2, 5; STOB. *Ecl.* i. 796; HERMIAS, *Irris.* p. 402), which is the same as *κρᾶσις καὶ συμφωνία τῶν στοιχείων.* For it is not the musical kind of 'harmony,' which is meant, but the harmonious mixture of the warm, cold, moist and dry elements in the body. Accordingly he is said to have considered the soul as *ἀνούσιος* (which means, not immaterial, as OSANN, p. 48, translates it, but non-substantial). The meaning of TERTULL. *De An.* c. 15 (cf. *infra*, under STRATO) is not clear.

[2] CIC. *Tusc.* i. 31, 77, LACTANT. *Instit.* vii. 7, 13; and cf. next note.

[3] PS.-PLUT. *Plac.* v. 1, 4: *Ἀριστοτέλης καὶ Δικ. τὸ κατ' ἐνθουσιασμὸν* [*γένος μαντικῆς*] *μόνον παρεισάγουσι*

Connected with Dicæarchus's view of the soul is his assertion that the practical life is superior to the theoretic.[4] One who held, as he did, that the soul was inseparably united to the body could not ascribe to that activity of thought in which it withdraws from all that is external in order to become absorbed in itself, the same value as Plato and Aristotle, following out their view of the nature of mind, had done. Conversely, one who found the highest activity of the soul only in the practical side of life must necessarily have been all the more ready to conceive of it as not in its nature separable from the bodily organs, but as the operative force that pervades them. But Dicæarchus demands

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καὶ τοὺς ὀνείρους, ἀθάνατον μὲν εἶναι οὐ νομίζοντες τὴν ψυχήν, θείου δέ τινος μετέχειν αὐτήν. Similarly in CIC. *Divin.* i, 3, 5, 50, 113. Cf. *ibid.* ii. 51, 10: 'magnus Dicæarchi liber est, nescire ea [quæ ventura sint] melius esse, quam scire.'

[1] Cf. *supra*, vol. ii. pp. 76, 328.

[2] The proposition (PSEUDO-PLUT. in the last note but one) that the soul has something divine, would not stand in his way, for even Democritus (ZELL. *Ph. d. Gr.* i. 812–3) admits as much. It is, however, questionable whether the *Placita* have any right to couple Dicæarchus with Aristotle in this connection. Certainly we cannot ascribe to him what CIC. *Divin.* i. 50, 113, says as to the loosing of the soul from the body in sleep and in excitement, and, in fact, Cicero does not name Dicæarchus for his view.

[3] *Fr.* 71–2, *ap.* ATHEN. xiv. 641, e, xiii. 594, e; cf. OSANN, p. 107 sqq.

[4] CIC. *Ad Att.* ii. 16: 'quoniam tanta controversia est Dicæarcho, familiari tuo, cum Theophrasto, amico meo, ut ille tuus *τὸν πρακτικὸν βίον* longe omnibus anteponat, hic autem *τὸν θεωρητικόν*.' Cf. *ibid.* vii. 3.

that just as this psychic force penetrates the whole body, the moral force should manifest itself throughout the whole of human life: it is not the lecture that makes the philosopher; it is not the public oration or the official business that makes the statesman; but the philosopher is he who carries his philosophy into every circumstance and action of his life, the statesman he who dedicates his whole life to the service of the people.[1]

With this strong practical bent Dicæarchus naturally found political studies especially attractive; and accordingly we hear, not only generally that he gave special attention to these,[2] but also that he wrote accounts of Greek Constitutions;[3] particularly we know that in his *Tripoliticus*—a development of Aristotelian ideas[4]—he proposed a combination of the three pure forms of constitution (democracy, aristocracy, and monarchy) as the best, and pointed to Sparta as an example of this combination.[5] Beyond this we know hardly anything of Dicæarchus's political philosophy.[1] We may pass over the fragments of his numerous writings upon history, geography, and the development of literature and art, especially as the views expressed in them are of no particular philosophical interest.[2]

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[1] This is the leading idea of the passage in PLUT. *An seni s. ger. resp.* c. 26, p. 796, of which we may assume that its general content belongs to Dicæarchus and not merely the single sentence καὶ γὰρ τοὺς ἐν ταῖς στοαῖς ἀνακάμπτοντας περιπατεῖν φασὶν, ὡς ἔλεγε Δικαίαρχος, οὐκέτι δὲ τοὺς εἰς ἀγρὸν ἢ φίλον βαδίζοντας. The meaning of that sentence will then be as follows: as people use the word περιπατεῖν only of walking, which is done directly for the sake of movement, so they commonly use the words φιλοσοφεῖν and πολιτεύεσθαι only of those activities which expressly and directly serve a philosophic or a political aim; but the one use is as incorrect as the other.

[2] CIC. *Legg.* iii. 5, 14.

[3] CIC. *Ad Att.* ii. 2 (cf. OSANN, p. 13 sqq.) names accounts by him of the Constitutions of Pella, Corinth, and Athens, which probably were parts of a general History of Constitutions, if not indeed of the Βίος Ἑλλάδος (*infra*); SUID. says that his πολιτεία Σπαρτιατῶν (which may also have been part of the *Tripoliticus*) was publicly read in Sparta every year.

[4] Cf. *supra*, vol. ii. p. 230 sq., and especially pp. 278 sqq.

[5] That this was the main idea of the Τριπολιτικὸς and that

Cicero, who studied and admired Dicæarchus (*supra*, vol. ii. p. 440, n. 4; *Tusc.* i. 31, 77, 'deliciæ meæ Dicæarchus'; *Ad Att.* ii. 2), borrowed from him the theory of the amalgamation of these forms of Constitution and the idea of exhibiting this amalgamation in a working polity, and that probably Polyb. vi. 2–10 also follows Dicæarchus, has been shown by Osann, *ibid.* p. 8 sqq., who, however, is wrong in treating as genuine the political Fragments of Archytas and Hippodamus, and in citing in support of his view Plut. *Qu. Conv.* viii. 2, 2, 3, p. 718, where Dicæarchus is merely speaking of the combination of Socratic and Pythagorean elements in Plato. This inference assumes the highest degree of probability when we observe that Phot. *Bibl. Cod.* 37, p. 8, a (following some scholar of the sixth century) speaks of εἶδος πολιτείας δικαιαρχικὸν, which consists in an amalgamation of the three kinds of constitution, and is the best kind of government, and that (according to *Fr.* 23 b. Athen. iv. 141, a) the *Tripoliticus* contained an exact description of the Spartan Phiditia, and when we compare with these data the fashion in which both Cicero in the *Republic* (*e.g.* i. 29, 45–6, and ii. 28, 39) and Polybius *loc. cit.* deal with the subject. Osann also suggests (p. 29 sqq.) that the work for which Cic. *Ad Att.* xiii. 32 says he wishes to make use of the *Tripoliticus*, was the 'De Gloria.'

[1] Direct information on this head we have none, except the remark (cited by Plut. *Qu. Conv.* iv. Procem. p. 659), that we should seek the good will of all, but the friendship of the good. We gather from Porph. *De Abst* iv. 1, 2 (see next note), and from the saying (Cic. *Off.* ii. 5, 16, *Consol.* ix. 351 Bip.) that many more men have been ruined by the hands of men than by wild beasts or catastrophes of nature, that Dic. denounced war. According to Porph. *ibid.* it seems that Dic. (like Theophrastus) saw even in the custom of slaughtering animals, the commencement of a downward tendency.

[2] His views as to the conical form of the earth (*Fr.* 53; Plin. *H. N.* ii. 65, 162) and the eternity of the world and of the races of men and animals are purely Aristotelian (*Fr.* 3, 4 *ap.* Cens. *Di. Nat.* c. 4; Varro, *R. Rust.* ii. 1); and inasmuch as he strove (using the myth of the rule of Kronos) to represent with much intelligence the original condition of mankind and the gradual transition from a primitive state of nature to pastoral life (with which began the eating of flesh and war) and the further advance to an agricultural life (*Fr.* 1–5, b; Porph.

Of another Peripatetic known to us by name, Phanias,[1] the friend and fellow-citizen of Theophrastus, we possess only isolated statements upon history and science.[2] The same is true of Clearchus of Soli;[3] since although among his writings, so far as they are known to us,[4] none are historical,[5] yet almost all the quotations from them which we possess relate to history, and these are for the most part so paltry and insignificant,[6] and

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De Abstin. iv. 1, 2, p. 295–6; HIERON. *Adv. Jovin.* II. t. iv. b, 205, Mart.; CENSOR. c. 4; VARRO, *R. R.* ii. 1, i. 9) he must, like Aristotle and Theophrastus (*supra*, vol. ii. pp. 30 sq. 378 sq.), have supposed that the history of human civilisation moved in a settled cycle.

[1] Our information as to the life of this man (from SUID. *s. v.*; STRABO, xiii. 2, 4, p. 618; PLUT. *Themist.* c. 13; AMMON. *in Categ.*, *Schol. in Ar.* 28, a, 40) is limited to the statements that he belonged to Eresos, that he was a scholar of Aristotle, and lived in and after Ol. 111 (in Ol. 111, 2, Aristotle returned from Macedonia to Athens). DIOGENES, v. 37, quotes a letter which Theophrastus, when he was advanced in age, wrote to this Phanias, *de quo* cf. also *Schol. in Apoll. Rhod.* i. 972.

[2] We hear of various historical works of Phanias; a work *π. ποιητῶν*, another on the Socratics (which may have dealt with other philosophers also); a book *πρὸς τοὺς σοφιστὰς*, of which the *πρὸς Διόδωρον* (Diodorus Kronus) was perhaps a part, and a *π. φυτῶν*, to which the matter cited by PLIN. *H. Nat.* xxii. 13, 35 from 'Phanias the physicist' may have belonged. He is also said to have written works on Logic (AMMON. *ibid.*, and *v. supra*, vol. i. p. 64, n. 1). The information which exists about these texts, and the fragments of them which are preserved, have been collected by VOISIN (*De Phania Eres.* Gand. 1824) and after him by MÜLLER, *Fragm. Hist. Gr.* ii. 293 sqq.

[3] He is often called Σολεὺς; and that the Cyprian, not the Cilician, Soli is meant, is clear (as many have observed, and as MÜLLER, *ibid.* 302, maintains against VERRAERT, *De Clearcho Sol.* Gand. 1828, p. 3–4) from ATHEN. vi. 256, c. e. f. We know nothing more about his life, except that he was a scholar of Aristotle. (See notes on next page.)

[4] See the list and Fragm. *apud* VERRAERT and MÜLLER, *ubi supra.*

[5] Even the *π. βίων*, which seems to have been his chief work, and from which we have citations of books 1, 2, 3, 4 and 8, cannot have been, if we are to judge by these Fragments, a biographical work, but only a discussion of the value of different kinds of lives: cf. MÜLLER, *ibid.* p. 302.

[6] This cannot be wholly due to the fact that we owe the citations to a gossip like Athenæus.

exhibit so little critical power, while Clearchus's own conjectures are so devoid of taste,[1] that they give us but a mean opinion of their author's powers. Generally it may be said that what we know of him is little fitted to establish the assertion that he is second to none of the Peripatetics,[2] although, on the other hand, it must be confessed that we do not know what those departures from the true Peripatetic doctrine were with which Plutarch charges him.[3] Besides a few unimportant scientific assertions,[4] and a discussion of the different kinds of riddles,[5] some hints as to his views upon ethics can be extracted from the fragments of Clearchus: these, however, merely amount to the statements that luxury and extravagance are in the highest degree reprehensible,[6] although, on the other hand, Cynic and Stoic indifference to external circumstances are far from praiseworthy;[1] that a sharp distinction must be drawn between friendship and flattery;[2] that passionate and unnatural love should be avoided,[3] and such like. On the whole, Clearchus gives us the impression rather of a versatile and well-read, though somewhat superficial, man of letters,[4] than of a scholar and philosopher.

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[1] E.g. his explanation of the myth of the egg of Leda, *ap.* ATHEN. ii. 57, e: 'the ancients in place of *ὑπερῷον* used *ᾠὸν* simply, and so, since Helen was begotten in a *ὑπερῷον*, the story arose that she came out of an egg'!—his statement, *ap* DIOG. i. 81, as to Pittacus (evidently founded only on the well-known verse *ap.* PLUT. *VII. Sap. Conv.* c. 14, p. 157, e): *τούτῳ γυμνασία ἦν σίτον ἀλεῖν*—and his idea that (*Fr.* 60 *ap.* Müller) the man-eating steeds of Diomedes meant his daughters!

[2] JOSEPH. *C. Apion.* i. 22, ii. 454 Haverc.: Κλ. ὁ Ἀριστοτέλους ὢν μαθητὴς καὶ τῶν ἐκ τοῦ περιπάτου φιλοσόφων οὐδενὸς δεύτερος. ATHEN. xv. 701, c.: Κλ. ὁ Σολεὺς οὐδενὸς δεύτερος τῶν τοῦ σοφοῦ Ἀριστοτέλους μαθητῶν.

[3] *De Fac. Lun.* 2, 5, p. 920: ὑμέτερος γὰρ ὁ ἀνὴρ, Ἀριστοτέλους τοῦ παλαιοῦ γεγονὼς συνήθης, εἰ καὶ πολλὰ τοῦ περιπάτου παρέτρεψεν.

[4] *Fr.* 70–74, a, 76, 78; cf. SPRENGEL, *Gesch. d. Arzneik.* (fourth edition); *v.* ROSENBAUM, i. 442–3.

[5] *Fr.* 63, *apud* ATHEN. x. 448, c. cf. PRANTL, *Gesch. d. Log.* i. 399 sq.

[6] So Clearchus, in his π. βίων, had recounted the numerous examples of these failings and their consequences, which ATHENÆUS cites from him (*Fragm.* 3–14, cf. *Fr.* 16–18, 21–23); and, on the other hand (*Fr.* 15, *ap.* ATHEN. xii. 548, d), named Gorgias to prove the wholesome effects of moderation.

Among the pupils of Aristotle is sometimes reckoned Heraclides of Pontus. It has already been remarked,[5] however, that neither the chronology nor the character of his doctrines is favourable to this assumption, although his learned efforts show that he was certainly closely akin to the Peripatetic school. Aristotle's influence may have had a more decided effect upon the orator and poet Theodectes, who died, however, before Alexander's Persian expedition.[6] Several other Aristotelians, such as Callisthenes,[7]

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[1] *Apud* ATHEN. xiii. 611, b, he distinguishes (apparently in opposition to the Cynics and perhaps to the Stoics also) between *βίος καρτερικὸς* and the *βίος κυνικός*.

[2] Cf. *Fr.* 30, 32 (ATHEN. vi. 255, b, xii. 533, e) with the bold sketch of a young and weak Prince ruined by flattering courtiers, &c. *Fr.* 25–6 (ATHEN. vi. 255, c. 258, a).

[3] *Fr.* 34–36 (ATHEN. xiii. 573, a, 589, d, 605, d, e).

[4] The conversation between Aristotle and a Jew reported by Clearchus (*Fr.* 69, *ap.* JOSEPH. *C. Apion.* i. 22), may be regarded as a literary invention, together with the accompanying explanation that the Jews derived their philosophy from India. The book cited (*π. ὕπνου, de quo* BERNAYS, *Abh. d. Hist.-philos. Gesellsch. in Breslau*, i. 1858, 190, 'Theophr. üb. Frömmigk.' 110, 187) need not, from our extant information as to Clearchus, be considered spurious.

[5] *Supra*, vol. ii. p. 387, n. 1, p. 433 sqq.; cf. ZELL. *Ph. d. Gr.* i. p. 843, n. 1.

[6] On this writer, who is often quoted by Aristotle, and of whom we have suggested (*supra*, vol. i. p. 72, n., following PLUT. *Alex.* c. 17) that he was with Aristotle in Macedonia, see WESTERMANN'S *Gesch. d. Beredsamk. bei d. Griech. u. Röm.* i. 84, A, 6, 142, A, 21, and *supra*, vol. i. p. 40, n. 2, p. 72.

[7] This kinsman and scholar of Aristotle is referred to *supra*, vol. i. p. 22, n. 1 *ad fin.* (see also VALER. MAX. vii. 2, ext. 8, SUID.

Leo of Byzantium,[1] and Clytus,[2] are known to us only as writers on history, Meno[3] only as the author of a history of pharmacology.[4] Of a theological work of Hipparchus of Stagira only the title has come down to us.[5] Of those who are not accredited with any written or oral teaching of their own, we need say nothing.[6]

Καλλισθ.), and as to his death, see *supra*, vol. i. p. 32 sqq. Further information about him and his writings will be found in GEIER, *Alex. Hist. Script.* 191 sqq.; MÜLLER, *Script. Rer. Alex.* 1 sqq.

[1] The little we can glean of this historian (whom SUID. Λέων Βυζ. confounds with an earlier politician of Byzantium of the same name) from SUID. *ibid.*, ATHEN. xii. 553–1, and PSEUDO-PLUT. *De Fluv.* 2, 2, 24, 2, is set out in MULLER, *Fragm. Hist. Gr.* ii. 328–9.

[2] ATHEN. xiv. 655, b, xii. 540, c; DIOG. i. 25; MÜLLER, *ibid.* 333.

[3] GALEN, in *Hippocr. de Nat. Hom.* vol. xv. 25–26 K., says this physician was a scholar of Aristotle's, and wrote an ἰατρικὴ συναγωγὴ in several books, erroneously ascribed to Aristotle himself. It is clear that this was an historical collection of medical theories, both from the title (which is the equivalent of the Τεχνῶν συναγωγὴ *supra*, vol. i. p. 73, n. 1), and also from the remark of Galen, that he had used for this work all the writings of earlier physicians then extant.

[4] Of the historian Marsyas (*supra*, vol. i. p. 22, n. 1) we cannot tell whether and how far he adhered to the Peripatetic philosophy.

[5] SUID. Ἵππαρχ. (cf. LOBECK, *Aglaoph.* 608) names a work of his: τί τὸ ἄρρεν καὶ θῆλυ παρὰ θεοῖς καὶ τίς δ γάμος, καὶ ἄλλα τινά.

[6] Including Adrastus of Philippi (STEPH. BYZ. *De Urb.* Φίλιπποι); Echecratides of Methymna (STEPH. BYZ. Μήθυμνα); King Cassander (PLUT. *Alex.* c. 74); Mnason of Phocis (ATHEN. vi. 264, d.; ÆLIAN, *V. H.* iii. 19); Philo, whom, according to ATHEN. xiii. 610–11, and DIOG. v. 38, Sophocles, the author of the law referred to *supra*, vol. ii. p. 350, n. 4, indicted for an offence against the constitution; the Eucairos named *supra*, vol. i. p. 97 (cf. HEITZ, *Verl. Schr.* 118–19), and the 'Plato' named by DIOG. iii. 109. Antipater was Aristotle's friend, but not his pupil.

CHAPTER XX

SCHOOL OF THEOPHRASTUS: STRATO

WITH the majority of those who belonged to the school of Theophrastus, the literary and historical tendency seems also to have been the predominating one. Most of those who are mentioned as belonging to it have confined themselves in their literary labours to history, the history of literature, ethics, politics, and rhetoric. This is true of Demetrius of Phalerus, distinguished as a scholar and statesman;[1] of

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[1] **OSTERMANN** has studied his life in the most thorough manner in *De Demetrii Phal. Vita*, &c., published (Part I.) Hersf. 1847, and (Part II.) Fulda, 1857; the titles and fragments of his writings are given by him in Part II., and by HERWIG, *Ueber Demetr. Phal. Schriften*, &c., Rinteln. 1850. Born about the middle of the fourth century (OST. i. 8), and probably while Aristotle was still alive, DEMETRIUS studied under Theophrastus (CIC. *Brut.* 9, 37, *Fin.* v. 19, 54, *Legg.* iii. 6, 14, *Off.* i. 1, 3; DIOG. v. 75), and (according to DEMETR. MAGN. *apud* DIOG. v. 75) he made his first appearance as a popular orator about the time that Harpalus came to Athens, *i.e.* about 324 B.C. On the termination of the Lamian War he seems, with Phocion, to have played some part as one of the chiefs of the Macedonian aristocratic party, for when, after Antipater's death (318 B.C.), the opposition party came into power for a while, and Phocion was executed, Demetrius also was tried and condemned to death (PLUT. *Phoc.* 35). He escaped his sentence, however, by flight, and when, in the following year, Cassander made himself master of Athens, he handed over to Demetrius the direction of the State under an oligarchical republican constitution. For ten years Demetrius occupied this position, and even if it be admitted that his rule may not have been blameless, he did most important service for the prosperity and order of Athens. He is accused of vanity, haughti-

Duris,[1] and his brother Lynceus[2] of Chamæleon,[3] and

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ness, and immorality by DURIS and DIYLLUS, *ap.* ATHEN. xii. 542, b sqq. xiii. 593, e, f (though ÆLIAN, *V. H.* ix. 9, transfers the statement to Demetrius Poliorcetes); but the untrustworthiness of Duris and the animus of his statements lead us to suppose a high degree of exaggeration. When Demetrius Poliorcetes, in 307 B.C., took the Piræus, an insurrection broke out in Athens against Demetrius Phal. and Cassander's party. Protected by Poliorcetes, he escaped to Thebes, and finally, after Cassander's death (Ol. 120, 2, 298–99 B.C.), went to Egypt. Here Ptolemy Lagi accorded him an honourable and influential position, in which he was specially active in founding the Alexandrian library (OST. i. 26–64: who, however, on p. 64 makes a very improbable suggestion, *ibid.* ii. 2 sqq.; cf. GRAUERT, *Hist. u. phil. Analekten*, i. 310 sqq.; DROYSEN, *Gesch. d. Hellenism.* ii. b, 106 sqq). After the death of this prince (and according to HERMIPP. *apud* DIOG. v. 78 *immediately* after, which would be 283 B C.) Ptolemy Philadelphus, whose succession Demetrius had opposed, banished him to a place in the country, where he lived some time as a political prisoner, and where he eventually died from the bite of an adder (CIC. *Pro Rabir. Post.* 9, 23, says this was a suicide; but HERMIPP., *ut supra*, states it as an accident). CICERO speaks very highly of his talents as an orator and as a scholar (see *Brut.* 9, 37 sq. 82, 285, *Orat.* 27, 92, *De Orat.* ii. 23, 95, *Offic.* i. 1, 3, and cf. QUINT. *Inst.* x. 1, 33, 80, and DIOG. v. 82), although he does not find in his speeches the fire and the power of the great orators of free Athens. That he brought about the translation of the so-called Septuagint is palpably a fable, as to which OSTERMANN ought not to have credited the lying Aristæus (ii. 9 sqq. 46–7). So also the work on the Jews is a forgery, although both HERWIG (pp. 15–16), and OSTERMANN (ii. 32–3), have accepted it.

[1] All we know of DURIS is that he was a Samian and a pupil of Theophrastus (see ECKERTZ'S account of him, *De Duride Sam.* Bonn, 1846; MÜLLER, *Fragm. Hist. Gr.* ii. 466 sqq. and ATHEN. iv. 128, a). To define the exact date of his lifetime (cf. MÜLLER, *ibid.*) is not possible. According to ATHEN. viii. 337, d, he had, at some period, governed his native town, but when we cannot say. His untrustworthiness in historical matters is very unfavourably criticised in PLUT. *Pericl.* 28. That this criticism is borne out by what we know of the statements cited from DURIS, ECKERTZ has amply proved. Nor is his literary talent highly thought of either by PHOT. *Cod.* 176, p. 121, a, 41 sqq., or by DIONYS. *Comp. Verb.* v. 28 R.

[2] See ATHEN. *ibid.* A list of his writings is given by MÜLLER, *ibid.* p. 466.

[3] See KÖPKE, *De Chamæleonte Peripatetico*, Berl. 1856. Of him also we know but little. He was a native of Heraclea in Pontus

Praxiphanes.[1] Even from the ethical writings of these men, however, nothing has come down to us of a philosophical character.[2] Of a few other disciples of

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(ATHEN. iv. 184, d, viii. 338, b, ix. 374, a, &c.), and is probably the same person as he whose courageous answer to king Seleucus is mentioned by MEMNON (*apud* PHOT. *Cod.* 224, p. 626, a). He is described as a Peripatetic by TATIAN, *Ad Gr.* 31, p. 269, a: and the circumstance that his book π. ἡδονῆς was attributed also to Theophrastus (cf. ATHEN. vi. 273, e, viii. 377, e) corroborates that description. From this circumstance KÖPKE (p. 34) concludes that Chamæleon was in fact a pupil of Theophrastus. He may, however, have been his co-disciple, since he (*apud* DIOG. v. 92) criticised his compatriot Heraclides, who was one of Plato's elder pupils (ZELL. *Ph. d. Gr.* i. p. 842, 2) for a plagiarism.—Besides Chamæleon we have also a mention by TATIAN, in the same passage (cf. also ATHEN. xii. 513, b, EUSTATH. in *Il.* α', p. 84, 18, SUID. Ἀθηναίας, and HESYCH. Ἀθηνᾶ), of a Peripatetic named MEGACLIDES (or Metacl.) from whose work on Homer a critical remark is cited.

[1] Described as ἑταῖρος Θεοφράστου, by PROCL. in *Tim.* 6, c. According to this passage he objected to the beginning of the *Timæus*; according to TZETZES, in *Hesiod. Opp. et Di.* v. 1, he considered the introduction to this book as spurious. STRABO, xiv. 2, 13, p. 655, calls him a Rhodian, and EPIPHAN. *Exp. Fid.* 1094, a, adds that his doctrine was in accord with that of Theophrastus. Whether he is the same person as the Praxiphanes described as a Peripatetic and Grammarian, to whom Callimachus dedicated a work (BEKKER'S *Anec.* ii. 729, where, however, our text gives παρ' Ἐξιφάνους; see also ARAT. ed. Buhle, ii. 432), is uncertain (as ZUMPT, *Abh. d. Berl. Akad.* v. J. 1842, *Hist.-phil. Kl.* p. 91, has remarked), inasmuch as CLEM. *Strom.* i. 309, says that a Mytilenean named Praxiphanes was the first person who was called γραμματικός. Nevertheless, it seems probable that it is one and the same person who is intended in all these passages.—A pupil of Praxiphanes, named PLATO, is mentioned by DIOG. iii. 109, and expressly distinguished by him from the other Plato referred to *supra*, vol. ii. p. 466, n. 6.

[2] Of PRAXIPHANES we know nothing at all except what is stated in the text.—Of the eight works of DURIS known to us, the most important were undoubtedly the three historical ones (the *Greek* and *Macedonian Histories*, the *Agathocles*, and the *Samian Chronicles*). Four other works treated of festival plays, of tragedy, of painters, and of sculpture. The work π. νόμων may have been philosophical, but we have from it nothing but two mythological notes.—From Lynceus, who was a writer of comedies and also a *gourmet*, and author of a book on the art of cookery (ATHEN. iv. p. 131–2,

Theophrastus some are known to us only by name,[1] while others hardly merit the title of philosophers.[2]

Much more important as a contributor to philosophy

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vi. p. 228 c, vii. p. 313–4; cf. iv. p. 128, a), ATHENÆUS, in his numerous quotations (see the Index to ATHEN. and MÜLLER, *ibid.*), and PLUT. *Demetr.* c. 27, *Schol. Theocr.* to iv. 20, give us only a few notes and stories, chiefly about cookery.—Of the sixteen writings of CHAMÆLEON which KÖPKE, p. 15 sqq., enumerates, twelve related to the epic, lyric, comic, and tragic poets, and were concerned merely with literary history. Only a few unimportant historical remarks have reached us from the Προτρεπτικὸς and the treatises π. μέθης, π. ἡδονῆς, π. Θεῶν (see KÖPKE, p. 36 sqq.: the citations are to be found in ATHENÆUS, *passim*, in CLEMENS ALEX. *Strom.* i. 300 A, in BEKKER, *Anecd.* i. 233, and DIOG. iii. 46).—DEMETRIUS was one of the most fertile authors of the Peripatetic school, and besides the forty-five works of his which DIOG. v. 80 mentions, we hear of others. OSTERMANN (*op. cit.* ii. p. 21 sqq.) and HERWIG (*op.cit.* p.10 sqq.) identify fifty writings, some of them comprising several books; from this list, however, must be withdrawn, in any case, those on the Jews (see *supra*, vol. ii. p. 447, n. 1) and perhaps those on the Egyptians (see OSTERMANN, p. 34). Amongst the genuine writings there were a good many treatises on moral subjects (including the eight Dialogues, which appear to have been of this class), as well as two books on statecraft, and one π. νόμων. There were also historical, grammatical and literary researches, a Rhetoric, a collection of speeches, which Cicero must have known, and another collection of letters. Nevertheless, out of all this mass of literary matter nothing, except a quantity of historical and grammatical scraps and a few insignificant remarks of moral and political interest, has come down to us. (Fr. 6–15, 38–40, 54, OSTERMANN, from DIOG. v. 82, 83; STOB. *Floril.* 8, 20, 12, 18; PLUT. *Cons. ad Apoll.* c. 6, p. 104; DIODOR. *Exc. Vatic.* libr. xxxi., also five in MAI'S *Nova Collect.* ii. 81, POLYB. *Exc.* l. xxx. 3, *ibid.* 434 sq., *Exc.* l. xxxiv.–xxxvii. 2, *ibid.* 444; *ibid.* x. 22, RUTIL. LUPUS, *De Fig. Sent.* i. 1.)

[1] This is so of all the men who are named in the Will of Theophrastus (DIOG. v. 52–3; cf. *supra*, ii. p. 350, n. 5) to succeed Strato in the enjoyment of the ground bequeathed by him for the School, *i.e.* HIPPARCHUS, NELEUS (*supra*, vol. i. p. 137, and p. 139, n. 3), CALLINUS, DEMOTIMUS, DEMARATUS, CALLISTHENES, MELANTHES, PANCREON, NICIPPUS; the same may be said of NICOMACHUS and the three sons of Pythias (cf. *supra*, vol. i. p. 20, n. 3 *ad fin.*, and SEXT. *Math.* i. 258), PROCLES, DEMARATUS, ARISTOTLE; and of Theophrastus's slave, POMPYLUS (DIOG. v. 36).

[2] Like MENANDER, the comic poet, who is also said to have been a pupil of Theophrastus.

is Strato of Lampsacus, the successor of Theophrastus,[1] and the only one of his pupils of whom it is known that he followed out with success the scientific lines laid down by him and by Aristotle.[2] After Theophrastus he is the most distinguished of all the Peripatetics,[3] a position which he merited not only by the extent of his knowledge and his writings, but also still more by the acuteness and independence of his thought, for he surpassed Theophrastus himself in the originality of his scientific labours.[1] His numerous writings, which seem to have aimed rather at the thorough investigation of particular questions than at a systematic and comprehensive treatment of the subject, extend over the whole field of philosophy.[2] But his strong point was the study of

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[1] Strato, a native of Lampsacus (DIOG. v. 58, &c., Λαμψακηνὸς is one of the epithets commonly used with his name) was a pupil of Theophrastus (*ibid.* CIC. *Acad.* i. 9, 34, *Fin.* v. 5, 13. SIMPL. *Phys.* 187, a, 225, a, &c.). He succeeded him as chief of the School, held that post for eighteen years, and died (*ibid.* p. 68) in Ol. 127, between 270 and 268 B.C. If, as DIOG. *ibid.* says, he was really the teacher of Ptolemy Philadelphus (who was called to govern along with his father in 285 B.C., and succeeded him on the throne in 283 B.C.) he must have stayed some time at the Egyptian court, to which he may possibly have been invited on the suggestion of Demetrius Phalereus. His letters (or letter) to Arsinoë, Ptolemy's sister and wife (quoted by DIOG. p. 60), would lead us to suppose that such was the case. The story that his princely pupil gave him eighty talents, DIOG. himself tells only with a φασί. His will, however (*apud* DIOG. p. 61 sqq.), shows him to be a wealthy man. He left in his testament the διατριβὴ (the garden and club-house of the School), with all arrangements necessary for the Syssitia, and his library, with the exception of his own MSS., to Lyco; the rest of his property he left to Arcesilaus, a namesake, either a son or a nephew of Strato's father.—For other details, cf. NAUWERCH, *De Stratone Lampsaceno*, Berl. 1836; KRISCHE, *Forschungen &c*, p. 349 sqq.; and see also BRANDIS, iii. p. 394 sqq.

[2] Erasistratus, the celebrated physician, was also considered by many as one of Theophrastus's pupils (DIOG. v. 57; see also GALEN, *Nat. Facult.* ii. 4, vol. ii. 88, 90–1, K., *De Sang. in Arter.* c. 7, vol. iv. 729, as the assertion of the followers of Erasistratus). This is not improbable, but according to GALEN (*Nat. Facult.* ii. 4, *ibid.* in *Hippocr. de Alim.* iii. 14, vol. xv. 307–8, and cf. *De Tremore*, c. 6, vol. vii. 614) his doctrine differed in many ways from that of the Peripatetics. He even affirmed οὐδὲν ὀρθῶς ἐγνωκέναι περὶ φύσεως τοὺς περιπατητικούς. It appears that it is only in the acknowledgment of the complete teleology of nature (whereon cf. GALEN, *Nat. Facult.* ii. 2, vol. ii. 78, 81) that he agreed with them; and even to this he did not always adhere. So far as we know, he never made any independent philosophical researches; see SPRENGEL, *Gesch. d. Arzneik.* 4th. ed.; ROSENBAUM, i. p. 321 sqq.

[3] Cf. following note; and DIOG. v. 58: ἀνὴρ ἐλλογιμώτατος καὶ φυσικὸς ἐπικληθεὶς ἀπὸ τοῦ περὶ τὴν θεωρίαν ταύτην παρ' ὁντινοῦν ἐπιμελέστατα διατετριφέναι. SIMPL. *Phys.* 225, a; τοῖς ἀρίστοις Περι-

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πατητικοὶς ἀριθμούμενος. Even Cicero, who was not at all well disposed to Strato, calls him, in *Fin.* v. 5, 13, '[in physicis] magnus,' and in *Acad.* i. 9, 34 praises his 'acre ingenium.' Nevertheless, his school was not so much frequented as that of Menedemus (of Eretria), as to which STRATO (*apud* PLUT. *Tranqu. An.* 13, p. 472) consoles himself with the remark: *τί οὖν θαυμαστὸν, εἰ πλείονές εἰσιν οἱ λούεσθαι θέλοντες τῶν ἀλείφεσθαι βουλομένων;*

[1] This independence, of which we shall find several proofs, was also recognised by the ancients; PLUT. *Adv. Col.* 14, 3, p. 1115: *τῶν ἄλλων Περιπατητικῶν ὁ κορυφαιότατος Στράτων οὔτ' Ἀριστοτέλει κατὰ πολλὰ συμφέρεται*, &c. Pseudo-GALEN, *Hist. Phil.* c. 2, p. 228 K.: [*Ἀριστοτέλης*] *τὸν Στράτωνα προσήγαγεν εἰς ἴδιόν τινα χαρακτῆρα φυσιολόγως* [*-ίας*]. CIC. (following Antiochus) *Fin.* v. 5, 13, 'nova pleraque;' *Acad.* i. 9. 34, 'In ea ipsa [i.e. in Physics] plurimum discedit a suis.' POLYB. *Exc. Libr.* xii. 25, c. vol. ii. 750 Bekk.: *καὶ γὰρ ἐκεῖνος* [*Στράτων ὁ φυσικὸς*] *ὅταν ἐγχειρήσῃ τὰς τῶν ἄλλων δόξας διαστέλλεσθαι καὶ ψευδοποιεῖν θαυμάσιός ἐστιν, ὅταν δ' ἐξ αὐτοῦ τι προφέρηται καί τι τῶν ἰδίων ἐπινοημάτων ἐξηγῆται, παρὰ πολὺ φαίνεται τοῖς ἐπιστήμοσιν εὐηθέστερος αὐτοῦ καὶ νωθρότερος*—which last statement, however, is difficult to accept as unbiassed.

[2] DIOG. v. 59–60, gives (besides the Letters and the *ὑπομνήματα*, the authenticity of which was doubted), some forty-four writings, to which may be added the book *περὶ τοῦ ὄντος* mentioned by PROCL. in *Tim.* 242 sq., and also the *π. κινήσεως* mentioned by SIMPL. *Phys.* 214, a, and 225, a. His works may be classed as follows: (1) *Logic: π. τοῦ ὅρου. π. τοῦ προτέρου γένους. π. τοῦ ἰδίου. τόπων προοίμια.* (2) *Metaphysics: π. τοῦ ὄντος. π. τοῦ προτέρου καὶ ὑστέρου* (mentioned also by SIMPL. in *Categ.* 106, a, 107, a, *Schol. in Ar.* 89, a, 40, 90, a, 12). *π. τοῦ μᾶλλον καὶ ἧττον. π. τοῦ συμβεβηκότος. π. τοῦ μέλλοντος. π. θεῶν γ'.* (3) *Physics: π. ἀρχῶν γ'* (which treated of heat and cold, &c., as physical principles). *π. δυνάμεων. π. τοῦ κενοῦ. π. χρόνου. π. κινήσεως. π. μίξεως. π. κούφου καὶ βαρέος. π. τοῦ οὐρανοῦ. π. τοῦ πνεύματος. π. χρωμάτων. π. ζωογονίας. π. τρυφῆς*

Nature, which was pursued by him in a spirit which justifies the name, bestowed upon him pre-eminently

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καὶ αὐξήσεως. π. ὕπνου. π. ἐνυπνίων. π. αἰσθήσεως. π. ὄψεως. π. τῶν ἀπορουμένων ζῴων. π. τῶν μυθολογουμένων ζῴων. π. φύσεως ἀνθρωπίνης. π. ἐνθουσιασμοῦ. π. νόσων. π. κρίσεων. π. λιμοῦ καὶ σκοτώσεων. (In the case of these three works it is possible that there is a confusion with writings of the physician and follower of Erasistratus presently to be mentioned, but it is to be remembered that Theophrastus himself wrote about vertigo and such subjects.) The λύσεις ἀπορημάτων and the work π. αἰτιῶν appear to have dealt with certain problems of physics; and the book π. τῶν μεταλλικῶν μηχανημάτων also was concerned with the mechanical side of physics. (4) *Ethics:* π. τἀγαθοῦ γ'. π. ἡδονῆς. π. εὐδαιμονίας. π. βίων (if this was not an historical work). π. ἀνδρείας. π. δικαιοσύνης γ'. π. ἀδίκου. π. βασιλείας γ'. π. βασιλέως φιλοσόφου (these two works, especially the latter, may have been written for Ptolemy Philadelphus; it is only COBET, however, who gives the title π. βασ. φιλ., for the earlier texts give π. φιλοσοφίας). There is, moreover, the work εὑρημάτων ἔλεγχοι δύο, which is evidently the same as that which CLEMENS, *Strom.* i. 300, A 308, A (and EUSEB. *Præp. Ev.* x. 6, 6, quoting him) cites by the words ἐν τῷ or ἐν τοῖς περὶ εὑρημάτων. PLIN. *H. Nat.* i.; *Ind. Libri*, vii. ('Stratone qui contra Ephori εὑρήματα scripsit') says it was written against Ephorus (probably, however, against others as well), and this accounts for the title given by Diogenes. Strato wished to correct the opinions of earlier writers on the subject of the origin of the various arts. Besides the above-named works (the authenticity of which cannot, except to a very limited extent, be tested), it would appear from GALEN (*De Venæ Sect. adv. Erasistratum* 2, vol. xi. 151, and *De V. S. adv. Erasistrateos* 2, vol. xi. 197) that we must also refer to this philosopher certain works on medicine, if the Strato named in these passages is in fact the same person. DIOG. v. 61 expressly makes a distinction between the two, and though in this he only follows Demetrius of Magnesia, there is the less reason to doubt his testimony (as ROSE, *De Arist. Lib. Ord.* 174, has done) since the physician Strato is described as a follower of Erasistratus, not only by GALEN (as is clear in the passages already cited and still more clear in *De Puls. Differ.* c. 17, vol. viii. 759), but also by ORIBAS. *Collect.* xlv. 23 (*ap.* MAI, *Class. Auct.* iv. 60), and by EROTIAN (*Lex. Hippocr.* p. 86, Franz); while TERTULLIAN, *De An.* 14, contrasts the views of 'Strato and Erasistratus' with those of Strato the philosopher on the question of the seat of the soul. If, according to DIOG. *ibid.*, the physician was a personal pupil of Erasistratus, he is probably the same as the person whom GALEN, *De Comp. Medic.* iv. 3, vol. xii. 749 calls a Berytian; cf. on this subject SPRENGEL, *Gesch. d. Arzneik.* 4, 559 (ed. 1).

among all the Peripatetics, of 'the Physicist.'[1] What we are told of his contributions to logic and ontology[2] is not very important. On the other hand, the whole difference between his point of view and that of Aristotle becomes at once manifest when we ask how he conceived of the principles of existence and change in the world. Aristotle had referred these to Nature, which in the first instance he conceived as universal efficient cause, but also further described as God or the First Mover, without, however, clearly defining the relation of these two conceptions to one another.[1] Strato, on the other hand—whether because he recognised the obscurity and fundamental contradiction in the Aristotelian view, or because the whole bent of his thought was opposed to an external supernatural cause—renounced the idea of God as a Being separate and distinct from the world as a whole, and contented himself with 'Nature.' This itself, however, he was unable otherwise to conceive of (agreeing in this with Aristotle[2]) than as a necessary Force operating without consciousness and reflection. He regarded the world, as Plutarch says,[3] as a lifeless whole, and all natural phenomena as the effect of natural necessity. He was convinced with Democritus, in spite of his opposition to his doctrine of Atoms, that the explanation of everything must be found in gravity and motion, and he is accordingly accused by Cicero and others of maintaining that God was unnecessary in the constitution of the world.[4]

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[1] Examples of the use of this, the commonest description applied to Strato (as to which see generally KRISCHE, *Forsch.* 351), we already have in the notes on p. 451, n. 1, 3, *sup.* Compare also CIC. *Fin.* v. 5, 13: 'primum Theophrasti Strato physicum se voluit, in quo etsi est magnus, tamen nova pleraque et perpauca de moribus.' This CIC. *Acad.* i. 9, 34, says with even less qualification; and he will not allow that Strato should be considered a Peripatetic, partly on this account and partly on account of the variance of his opinions on physics. The list of his writings, however, gives evidence that he did not leave ethics out of account. SENECA states the position more justly when he says of him (*Nat. Qu.* vi. 13, 2): 'hanc partem philosophiæ maxime coluit et rerum naturæ inquisitor fuit.'

[2] We are told by SEXT. *Math.* viii. 13, that he did not, like the Stoics, distinguish between idea, word, and thing (σημαινόμενον, σημαῖνον, τυγχάνον), but only, with Epicurus, between the σημαῖνον and the τυγχάνον, and that thereby he placed truth and error merely in the voice (*i.e.* in the words). The second half of this statement is probably merely a deduction drawn by Sextus; and the first half of it does not accurately reproduce either Strato's expressions or his meaning. Strato is further said to have given as the definition of Being: τὸ ὂν ἐστι τὸ τῆς διαμονῆς αἴτιον, *i.e.* he defined it as the permanent element in things (PROCL. in *Tim.* 242, E). We see further from SIMPL. in *Categ.* 106, a, 107, a sqq. (*Schol. in Ar.* 89, a 37, 90, a, 12 sqq.), that he distinguished various significations of the terms πρότερον and ὕστερον, which SIMPL. *ibid.* takes the trouble to reduce to the five which Aristotle reckons in cap. 12 of the *Categories*. Finally ALEX. *Top.* 173, and ALD. (*Schol.* 281, b, 2) criticise an attempt which Strato had made to amplify an Aristotelian rule (*Top.* iv. 4, 125, a, 5) for ascertaining the relations of subordination between two concepts. It is impossible, however, to discuss the point here.

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[1] See *supra*, vol. i. pp. 388, 420 sqq.

[2] See *supra*, vol. i. p. 464, n. 1.

[3] *Adv. Col.* 14, 3, p. 1115 (*v. sup.* vol. ii. p. 452, n. 1): *οὔτ' Ἀριστοτέλει κατὰ πολλὰ συμφέρεται καὶ Πλάτωνι τὰς ἐναντίας ἔσχηκε δόξας περὶ κινήσεως περὶ νοῦ καὶ περὶ ψυχῆς καὶ περὶ γενέσεως· τελευτῶν [δὲ] τὸν κόσμον αὐτὸν οὐ ζῷον εἶναι φησί, τὸ δὲ κατὰ φύσιν ἕπεσθαι τῷ κατὰ τύχην· ἀρχὴν γὰρ ἐνδιδόναι τὸ αὐτόματον, εἶτα οὕτω περαινεσθαι τῶν φυσικῶν παθῶν ἕκαστον.* We must guard ourselves against believing Plutarch (as of Democritus, cf. ZELLER, *Ph. d. Gr.* i. 788–9) when he tells us that Strato held chance (*τύχη*) to be the basis of nature. He can only mean that Strato maintained the necessity of nature (*αὐτόματον*); it is Plutarch's own idea to identify this necessity with 'chance,' because both stand equally in antithesis to the teleological conception of nature (cf. *supra*, vol. i. pp. 357 sqq.).

[4] CIC. *Acad.* ii. 38, 121: 'Negas sine Deo posse quidquam, ecce tibi e transverso Lampsacenus Strato, qui det isti Deo immunitatem magni quidem muneris . . . negat opera Deorum se uti ad fabricandum mundum. Quæcunque sint docet omnia esse effecta natura: nec ut ille, qui asperis et lævibus et hamatis uncinatisque corporibus concreta

It would be truer to say that his view identified God with Nature, in which he saw nothing personal, nothing akin to man, but only the universal energy which is the source of all change and becoming in things:[1] and on this ground accurate writers represent him as denying that the Deity has a soul,[2] and holding that the heavens and the earth, in other words the universe, are God.[3]

Passing to his account of natural causes, we find that Strato, as already remarked, was unable, in spite of his naturalism, to reconcile himself to any such mechanical explanation of the world as that of Democritus,[4] partly because he found in it no adequate explanation of phenomena,[5] and partly because he held that indivisible bodies were as inconceivable as an

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hæc esse dicat, interjecto inani. Somnia censet hæc esse Democriti, non docentis, sed optantis. Ipse autem singulas mundi partes persequens, quidquid sit aut fiat naturalibus fieri aut factum esse docet ponderibus et motibus.'

[1] The Epicurean in CIC *N. D.* i. 13, 35 says: 'nec audiendus ejus [Theophrasti] auditor Strato, is qui physicus appellatur; qui omnem vim divinam in natura sitam esse censet, quæ causas gignendi augendi minuendi habeat, sed careat omni sensu [consciousness] et figura [*i.e.* the human form of the Epicurean gods].' This is repeated almost word for word by LACTANT. *De Ira, D.* c. 10 *init.* and more concisely by MINUC. FELIX, *Octav.* 19, 9: 'Straton quoque et ipse naturam [sc. Deum loquitur].' So likewise MAX. TYR. i. 17, 5 says that even the atheist has the idea of God. . . . *κἂν ὑπαλλάξῃς τὴν φύσιν* [even if he puts nature in God's place], *ὡς Στράτων.*

[2] SENECA *apud* AUGUSTIN. *Civ. D.* vii. 1: 'hoc loco dicet aliquis . . . ego feram aut Platonem aut Peripateticum Stratonem, quorum alter fecit Deum sine corpore, alter sine animo?'

[3] TERTULLIAN, *Adv. Marc.* i. 13: 'Strato cœlum et terram [Deos pronuntiavit].'

[4] *Supra*, vol. ii. p. 455, n. 4.

[5] At any rate this appears to be the meaning of Cicero's 'somnia non docentis sed optantis' (*supra*, vol. ii. p. 455, n. 4): the atoms are a capricious hypothesis, of which it is asserted and hoped, but not proved, that it will explain the facts it was invented to explain.

infinite void.[1] The essential causes consist rather, on his theory, in the properties of things,[2] or more accurately in the active forces that cause these properties.[3] The ultimate properties he further held to be Heat and Cold,[4] which Aristotle had already recognised as the active elements in things,[5] apparently attributing, with Aristotle,[6] the higher reality to that which he considered the primary and positive principle of life and being.[7] The primary substratum of cold he held to be water; of heat, fire or warm vapour.[8] Heat and cold are continually at war; where the one forces an entrance, the other is expelled. This alternation explains, for example, the phenomena of the thunderstorm and the earthquake.[9] Given these corporeal forces,

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[1] On both points see further *infra.* The hypothesis of a *vacuum* was dealt with by STRATO (*v. sup.*, vol. ii. p. 452, n. 2) in one of his treatises, presumably directed against Democritus. Whether he went further into the refutation of the Atomistic theory, or contented himself with Aristotle's elaborate criticism, we know not.

[2] SEXT. *Pyrrh.* iii. 33 (and nearly word for word GALEN. *Hist. Phil.* c. 5, p. 244): Στράτων δὲ ὁ φυσικὸς τὰς ποιότητας [ἀρχὴν λέγει]. So also, as FABRICIUS has already remarked, we must in the *Clementine Recognitions*, viii. 15, for 'Callistratus qualitates [sc. principia mundi dixit]' read 'Strato' for 'Callistratus.'

[3] STRATO dealt with this question in the three books π. ἀρχῶν, and perhaps also in the π. δυνάμεων (*supra*, vol. ii. p. 452, n. 3).

[4] STOB. *Ecl.* i. 298: Στράτων στοιχεῖα τὸ θερμὸν καὶ τὸ ψυχρόν. Cf. *infra*, n. 9.

[5] *Supra*, vol. i. p. 480, n. 3.

[6] *Supra*, vol. i. p. 483, n. 2.

[7] EPIPHAN. *Exp. Fid.* 1090 A: Στρατωνίων [l. Στράτων] ἐκ Λαμψάκου τὴν θερμὴν οὐσίαν ἔλεγεν αἰτίαν πάντων ὑπάρχειν.

[8] PLUT. *Prim. Frig.* 9, p. 948: οἱ μὲν Στωϊκοὶ τῷ ἀέρι τὸ πρώτως ψυχρὸν ἀποδιδόντες, Ἐμπεδοκλῆς δὲ καὶ Στράτων τῷ ὕδατι. As to warmth, though positive information fails us, the parallel is self-evident. All this is also Aristotelian; *v. supra*, vol. i. p. 483, n. 2.

[9] SENECA, *Nat. Qu.* vi. 13, 2 (on Earthquakes): 'hujus [Strat.] tale decretum est: Frigidum et calidum semper in contraria abeunt, una esse non possunt. Eo frigidum confluit, unde vis calida discessit, et invicem ibi calidum

Strato found that he could dispense with the incorporeal.[1]

We are not told how Strato connected the primary opposition of heat and cold with the other elementary kinds of opposites, or how he deduced the elements from it; on the latter point he probably followed Aristotle. On the other hand, he combated his views upon gravity. Aristotle assigned to each element its place in the universe according to the direction in which it tended. The earth he accordingly held to be alone absolutely heavy; fire, on the other hand, to be absolutely light; while air and water were relatively heavy and light.[2] Strato, on the other hand, asserted, with Democritus, on the ground of a very simple observation, that all bodies are

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est, unde frigus expulsum est.' Wells and pits are therefore warm in the winter, 'quia illo se calor contulit superiora possidenti frigori cedens.' If, then, there is a certain amount of heat accumulated in the earth's interior, and a further quantity of heat, or of cold, is thereupon added under pressure, the excess must find for itself an outlet by force, and thereby earthquakes arise: 'vices deinde hujus pugnæ sunt: defit calori congregatio ac rursus eruptio. Tunc frigora compescuntur et succedunt mox futura potentiora; dum alterna vis cursat et ultro citroque spiritus commeat, terra concutitur.' STOB. *Ecl.* i. 598; *Στράτων, θερμοῦ ψυχρῷ παρείξαντος, ὅταν ἐκβιασθὲν τύχῃ, τὰ τοιαῦτα γίγνεσθαι, βροντὴν μὲν ἀπορρύξει, φάει δὲ ἀστραπὴν, τάχει δὲ κεραυνὸν, πρηστῆρας δὲ καὶ τυφῶνας τῷ πλεονασμῷ τῷ τῆς ὕλης, ἣν ἑκάτερος αὐτῶν ἐφέλκεται, θερμοτέραν μὲν ὁ πρηστὴρ, παχυτέραν δὲ ὁ τυφών.* Cf. herewith what is said *supra*, vol i. p. 515, n. 2; vol. ii. p. 378, n. 1, as to the theory of *ἀντιπερίστασις* in Aristotle and Theophrastus.

[1] PLUT. *ibid.*: *τὰ αἰσθητὰ ταυτὶ, ἐν οἷς Ἐμπεδοκλῆς τε καὶ Στράτων καὶ οἱ Στωϊκοὶ τὰς οὐσίας τίθενται τῶν δυναμένων, οἱ μὲν Στωϊκοὶ* &c. Cf. also what is said on Light and Heat, *infra*, p. 460, n. 2, and see PLUT. *Plac.* v. 4, 3 (GALEN. *H. Phil.* c. 31, p. 322): *Στράτων καὶ Δημόκριτος καὶ τὴν δύναμιν* [sc. *τοῦ σπέρματος*] *σῶμα· πνευματικὴ γάρ.* Strato is as little likely as Democritus to have called a *σῶμα* a *δύναμις*; he only affirmed, as the genuine text of Plutarch correctly says, that forces are attached to material things as to their substratum (*οὐσία*).

[2] *Supra*, vol. i pp. 447–8, 477.

heavy and press towards the centre; and if some of these mount upwards, this is because of the pressure which the heavier exercise upon the lighter.[1] How he further explained this difference of degree in weight—whether he conceived that while everything had weight, yet, on account of the qualitative difference in materials, everything had not the same weight; or whether, with Democritus,[2] he held that all matter was equally heavy, and explained the difference of the specific gravity of bodies by the assumption of empty interspaces within them—we do not know. The views he elsewhere expresses rather support the latter supposition. For while strenuously combating with Aristotle the atomic theory and asserting the infinite divisibility of bodies,[3] he yet agreed with Democritus in assuming the existence of void: while rejecting as indecisive most of the reasons adduced in support of this assumption,[1] he yet believed it impossible to explain many phenomena—as for instance those of light and heat—except on the presupposition of empty interspaces into which light and caloric may find an entrance.[2] Since, however, this only proves the existence of empty spaces within the material world, and since his definition of space, which resembled Aristotle's,[3] excluded the conception of a space outside the world. Strato confined the existence of void to the world itself, and rejected the view of Democritus that there is an infinite void outside our world.[1] On time,[2] likewise, he held views different from his predecessors. Aristotle's definition of time as number or count of movement appeared to him to be false. Number, he remarked, is a discontinuous, time and motion are continuous quantities, which cannot, therefore, be counted. Time is continually beginning and ending; with number this is not the case. The parts of number exist simultaneously; this is never so with portions of time. If time is number, present

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[1] SIMPL. *De Cœlo*, 121, a, 32 sqq. K., *Schol. in Ar.* 486, a, 5: ὅτι δὲ οὔτε τῇ ὑπ' ἀλλήλων ἐκθλίψει βιαζόμενα κινεῖται [the elements, by movement in their natural positions] δείκνυσιν ['Αριστ.] ἐφεξῆς. ταύτης δὲ γεγόνασι τῆς δόξης μετ' αὐτὸν Στράτων ὁ Λαμψακηνός τε καὶ 'Επίκουρος, πᾶν σῶμα βαρύτητα ἔχειν νομίζοντες καὶ πρὸς τὸ μέσον φέρεσθαι, τῷ δὲ τὰ βαρύτερα ὑφιζάνειν τὰ ἧττον βαρέα ὑπ' ἐκείνων ἐκθλίβεσθαι βίᾳ πρὸς τὸ ἄνω, ὥστε εἴ τις ὑφεῖλε τὴν γῆν, ἐλθεῖν ἂν τὸ ὕδωρ εἰς τὸ κέντρον, καὶ εἴ τις τὸ ὕδωρ, τὸν ἀέρα, καὶ εἰ τὸν ἀέρα, τὸ πῦρ . . . οἱ δὲ τοῦ πάντα πρὸς τὸ μέσον φέρεσθαι κατὰ φύσιν τεκμήριον κομίζοντες τὸ τῆς γῆς ὑποσπωμένης τὸ ὕδωρ ἐπὶ τὸ κάτω φέρεσθαι καὶ τοῦ ὕδατος τὸν ἀέρα, ἀγνοοῦσι &c. ἰστέον δὲ ὅτι οὐ Στράτων μόνος οὐδὲ 'Επίκουρος πάντα ἔλεγον εἶναι τὰ σώματο βαρέα καὶ φύσει μὲν ἐπὶ τὸ κάτω φερόμενα παρὰ φύσιν δὲ ἐπὶ τὸ ἄνω, ἀλλὰ καὶ Πλάτων οἶδε φερομένην τὴν δόξαν καὶ διελέγχει. STOB. *Ecl.* i. 348: Στράτων μὲν προσεῖναι τοῖς σώμασι φυσικὸν βάρος, τὰ δὲ κουφότερα τοῖς βαρυτέροις ἐπιπολάζειν οἷον ἐκπυρηνιζόμενα.

[2] ZELL. *Ph. d. Gr.* i. 779.

[3] *Supra*, vol. ii. p. 455, n. 4, and SEXT. *Math.* x. 155: καὶ δὴ οὕτως ἠνέχθησαν οἱ περὶ τὸν Στράτωνα τὸν φυσικόν· τοὺς μὲν γὰρ χρόνους εἰς ἀμερὲς ὑπέλαβον καταλήγειν, τὰ δὲ σώματα καὶ τοὺς τόπους εἰς ἄπειρον τέμνεσθαι, κινεῖσθαί τε τὸ κινούμενον ἐν ἀμερεῖ χρόνῳ ὅλον ἄθρουν μεριστὸν διάστημα καὶ οὐ περὶ τὸ πρότερον πρότερον. Cf. *infra*, p. 462, n. 2.

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[1] The three reasons for the assumption of a vacuum, which ARISTOTLE reckons in *Phys.* iv. 6, 213 (cf. *supra*, vol. i. p. 434), Strato (according to SIMPL. *Phys.* 153, a) reduced to two, *εἴς τε τὴν κατὰ τόπον κίνησιν καὶ εἰς τὴν τῶν σωμάτων πίλησιν* [*i.e.* that no movement in space and no condensation would be possible without a void]; *τρίτον δὲ προστίθησι τὸ ἀπὸ τῆς ὁλκῆς· τὴν γὰρ σιδηρῖτιν λίθον ἕτερα σιδήρια δι' ἑτέρων ἕλκειν συμβαίνει* (as SIMPL. further explains). He cannot, however, have found that any of these arguments was convincing, for we find that as to the first of them SIMPL. 154, b, after citing the examples with which Aristotle had confuted it, goes on to remark: 'still more striking is the refutation which Strato brings against it—namely, that a small stone in a closed vessel filled with water will move towards the mouth when one turns the vessel round.' So again, as to the third argument, SIMPL. says in 155, b: *ὁ δὲ Στράτων καὶ τὸν ἀπὸ τῆς ἕλξεως* [sc. *λόγον*] *ἀναλύων· οὐδὲ ἡ ἕλξις, φησὶν, ἀναγκάζει τίθεσθαι τὸ κενόν. οὔτε γὰρ εἰ ἔστιν ὅλως ἕλξις φανερὸν, ὅτε καὶ Πλάτων αὐτὸς τὴν ἑλκτικὴν δύναμιν ἀναιρεῖν δοκεῖ. οὔτε, εἰ ἔστιν ἕλξις, δῆλον. εἰ διὰ τὸ κενὸν ἡ λίθος ἕλκει καὶ μὴ δι' ἄλλην αἰτίαν. οὐδὲ γὰρ ἀποδεικνύουσιν, ἀλλ' ὑποτίθενται τὸ κενὸν οἱ οὕτω λέγοντες.* These arguments, as well as the other remarks we find in SIMPL. on this subject, must be directly or indirectly derived from STRATO'S book *π. κενοῦ.*

[2] SIMPL. *Phys.* 163, b: *ὁ μέντοι Λαμψακηνὸς Στράτων δεικνύναι πειρᾶται, ὅτι ἔστι τὸ κενὸν διαλαμβάνον τὸ πᾶν σῶμα ὥστε μὴ εἶναι συνεχὲς, λέγων ὅτι οὐκ ἂν δι' ὕδατος ἢ ἀέρος ἢ ἄλλου σώματος ἐδύνατο διεκπίπτειν τὸ φῶς οὐδὲ ἡ θερμότης οὐδὲ ἄλλη δύναμις οὐδεμία σωματική. πῶς γὰρ αἱ τοῦ ἡλίου ἀκτῖνες διεξέπιπτον εἰς τὸ τοῦ ἀγγείου ἔδαφος; εἰ γὰρ τὸ ὑγρὸν μὴ εἶχε πόρους, ἀλλὰ βίᾳ διέστελλον αὐτὸ αἱ αὐγαὶ, συνέβαινεν ὑπερεκχεῖσθαι τὰ πλήρη τῶν ἀγγείων, καὶ οὐκ ἂν αἱ μὲν τῶν ἀκτίνων ἀνεκλῶντο πρὸς τὸν ἄνω τόπον αἱ δὲ κάτω διεξέπιπτον.* From this passage we also gather that Strato, even more definitely than Aristotle, considered light and heat to be material.

[3] STOB. *Ecl.* i. 380: *τόπον δὲ εἶναι* [according to Strato] *τὸ μεταξὺ διάστημα τοῦ περιέχοντος καὶ τοῦ περιεχομένου*—which differs

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from the Aristotelian definition (*supra*, vol. i. p. 432, n. 4) only in the circumstance that the latter assigned the inner boundary of the surrounding bodies as the space which the surrounded body occupies, whereas Strato, who allowed that bodies were separated by a void, considered the void between the surrounding and the surrounded bodies as the space of the latter.

[1] STOB. *ibid.*: *Στράτων ἐξωτέρω μὲν ἔφη τοῦ κόσμου μὴ εἶναι κενὸν, ἐνδοτέρω δὲ δυνατὸν γενέσθαι.* From the same source, as it appears, we have in THEODORET, *Cur. Gr. Aff.* iv. 14, p. 58: *ὁ δὲ Στράτων ἔμπαλιν* [sc. *ἢ οἱ Στωϊκοὶ*], *ἔξωθεν μὲν μηδὲν εἶναι κενὸν, ἔνδοθεν δὲ δυνατὸν εἶναι.* Herewith, and with n. 2 on p. 460, agrees SIMPL. *Phys.* 144, b: some hold the *χωρητικὸν* to be unbounded, as did Democritus, *οἱ δὲ ἰσόμετρον αὐτὸ τῷ κοσμικῷ σώματι ποιοῦσι, καὶ διὰ τοῦτο τῇ μὲν ἑαυτοῦ φύσει κενὸν εἶναι λέγουσι, πεπληρῶσθαι δὲ αὐτὸ σωμάτων ἀεὶ καὶ μόνῃ γε τῇ ἐπινοίᾳ θεωρεῖσθαι ὡς καθ' αὑτὸ ὑφεστὼς, οἷοί τινες οἱ πολλοὶ τῶν Πλατωνικῶν φιλοσόφων γεγόνασι, καὶ Στράτωνα δὲ οἶμαι τὸν Λαμψακηνὸν τῆς τοιαύτης γενέσθαι δόξης.* For SIMPL., it will be observed, does not absolutely ascribe this view to Strato; and, besides, he is in this passage dealing only with the proposition that Space is entirely occupied by the body of the world, which excludes the notion of an exterior void, but not the possibility of smaller interior vacua. But SIMPL. is inaccurate when, at 140, b, he says that 'some believe that space is to be found without matter, as Democritus and Epicurus: *οἱ δὲ διάστημα καὶ ἀεὶ σῶμα ἔχον καὶ ἐπιτήδειον πρὸς ἕκαστον, ὡς . . . ὁ Λαμψακηνὸς Στράτων.* The empty spaces *inside* bodies are here ignored.

[2] Which subject, as well as that of 'the vacuum,' he treated in a separate work; *supra*, vol. ii. p. 152, n. 2.

time and unity must be the same. Why, finally, should time, as the measure of earlier and later, refer only to motion and not equally to rest, to which earlier and later also apply?[1] He himself defined time as amount of activity,[2] the quantity or amount of motion and rest;[3] he carefully distinguished[4] between time and that which is in time,[5] and accordingly refused to admit that days, years, &c., are portions of time: they correspond rather to real and definite events, whereas time is only the duration of these events.[1] The statement that time according to Strato consists of indivisible *minima*, and that motion does not proceed continuously in these several portions of time, but completes itself moment by moment,[2] seems to rest upon a misapprehension.[3] Strato had shown in a more comprehensive fashion than Aristotle that motion,[4] like space and time, is continuous.[5] The seat of motion, especially in qualitative change, he sought for, not only in the material that is moved, but also in that which ceases and that which comes into being with the motion.[1] He corroborated the theory of the acceleration of motion by simple observations of the fall of bodies.[2]

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[1] See Simpl. *Phys.* 187, a, for a detailed account of these objections. Strato also remarked, as is observed in the latter part of the same passage, that if 'ἐν χρόνῳ εἶναι' = 'ὑπὸ τοῦ χρόνου περιέχεσθαι,' then Eternity is not in time. Simpl. goes on as in next note.

[2] Simpl. 187, a: καὶ ἄλλα δὲ πολλὰ ἀντειπὼν πρὸς τὴν Ἀριστοτέλους ἀπόδοσιν ὁ Στράτων αὐτὸς τὸν χρόνον τὸ ἐν ταῖς πράξεσι ποσὸν εἶναι τίθεται. πολὺν γάρ, φησὶ, χρόνον φαμὲν ἀποδημεῖν καὶ πλεῖν καὶ στρατεύεσθαι καὶ πολεμεῖν, ὁμοίως δὲ καθῆσθαι καὶ καθεύδειν καὶ μηθὲν πράττειν, καὶ πολὺν χρόνον φαμέν καὶ ὀλίγον, ὧν μέν ἐστι τὸ ποσὸν πολὺ, πολὺν χρόνον, ὧν δὲ ὀλίγον, ὀλίγον· χρόνος γὰρ τὸ ἐν ἑκάστοις τούτων ποσόν. We have a similar definition of Time from Speusippus, if the statement in Zell. *Ph. d. Gr.* i. 859, n. 4 is correct.

[3] Stob. *Ecl.* i. 250: Στράτων [τὸν χρόνον] τῶν ἐν κινήσει καὶ ἠρεμίᾳ ποσόν. Sext. *Pyrrh.* iii. 137 (*Math.* x. 128): Στράτων δὲ, ἢ ὥς τινες Ἀριστοτέλης [χρόνον φησὶν εἶναι] μέτρον κινήσεως καὶ μονῆς. *Math.* x. 177: Στράτων ὁ φυσικὸς . . . . ἔλεγεν χρόνον ὑπάρχειν μέτρον πάσης κινήσεως καὶ μονῆς· παρήκει γὰρ πᾶσι τοῖς κινουμένοις ὅτε κινεῖται καὶ πᾶσι τοῖς ἀκινήτοις ὅτε ἀκινητίζει. καὶ διὰ τοῦτο πάντα τὰ γινόμενα ἐν χρόνῳ γίνεται.

[4] Simpl. 187, a, Strato discusses the concepts of the ταχὺ and βραδὺ, and says the former is ἐν ᾧ τὸ μὲν ποσὸν, ἀφ' οὗ ἤρξατο καὶ εἰς ὃ ἐπαύσατο, ὀλίγον, τὸ δὲ γεγονὸς ἐν αὐτῷ πολὺ, and the latter the opposite, ὅταν ᾖ τὸ μὲν ποσὸν ἐν αὐτῷ πολὺ, τὸ δὲ πεπραγμένον ὀλίγον. In rest we have no such distinctions, and so in a state of rest time is neither quick nor slow, but only greater or less; for it is only action and motion, not the ποσὸν, ἐν ᾧ ἡ πρᾶξις, which can be faster or slower.

[5] Or more correctly, that in which time is; for in Simpl. 187, b, d, he expressly says: διὰ τοῦτο δὲ πάντα ἐν χρόνῳ εἶναι φαμὲν, ὅτι πᾶσι τὸ ποσὸν ἀκολουθεῖ καὶ τοῖς γινομένοις καὶ τοῖς οὖσιν. In such a case we use the word 'in' conversely (κατὰ τὸ ἐναντίον), as when we say, 'the town is in confusion,' or 'mankind in terror,' ὅτι ταῦτα ἐν ἐκείνοις.

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[1] SIMPL. 187, b: *ἡμέρα δὲ καὶ νὺξ, φησὶ* [add. *καὶ μὴν*] *καὶ ἐνιαυτὸς οὐκ ἔστι χρόνος οὐδὲ χρόνου μέρη, ἀλλὰ τὰ μὲν ὁ φωτισμὸς καὶ ἡ σκίασις, τὰ δὲ ἡ τῆς σελήνης καὶ ἡ τοῦ ἡλίου περίοδος, ἀλλὰ χρόνος ἐστὶ τὸ ποσὸν ἐν ᾧ ταῦτα.* (What follows is not from Strato, as BRANDIS, iii. 403, affirms, but rather a criticism of his view by SIMPL.) On the other hand, we must not conclude from SIMPL. *ibid.* 189, b (*ἐκ δὲ τούτων τῶν λύσεων καὶ τὰς τοῦ Στράτωνος ἀπορίας περὶ τοῦ μὴ εἶναι τὸν χρόνον διαλύειν δυνατὸν*) that Strato denied the reality of time; he simply brings forward this *aporia* in the same sense as Aristotle himself had done in *Phys.* iv. 10 *init.*

[2] SEXTUS, *sup.* vol. ii. p. 452, n. 1.

[3] Strato expressly says, *apud* SIMPL. *Phys.* 187, a, that time cannot be the number of motion, *διότι ὁ μὲν ἀριθμὸς διωρισμένον ποσὸν ἡ δὲ κίνησις καὶ ὁ χρόνος συνεχής· τὸ δὲ συνεχὲς οὐκ ἀριθμητόν.* On the continuity of motion, more will be found *infra.* Probably Strato only repeated the teaching already worked out by Aristotle (*supra*, vol. i. p. 439, n. 2; p. 417, and *Phys.* i. 3, 186, a, 15) as to the indivisibility of the present and the *ἀθρόα μεταβολή.*

[4] On this also Strato wrote a separate book.

[5] SIMPL. *Phys.* 168, a: *ὁ δὲ Λαμψακηνὸς Στράτων οὐκ ἀπὸ τοῦ μεγέθους μόνον συνεχῆ τὴν κίνησιν εἶναι φησὶν, ἀλλὰ καὶ καθ' ἑαυτὴν, ὡς, εἰ διακοπείη* [if it were *not* continuous], *στάσει διαλαμβανομένη* (l.-*νην*), *καὶ τὸ μεταξὺ δύο διαστάσεων* (l. *στάσεων*) *κίνησιν οὖσαν ἀδιάκοπον. 'καὶ ποσὸν δέ τι, φησὶν, ἡ κίνησις καὶ διαιρετὸν εἰς ἀεὶ διαιρετα.'* What follows is not derived from Strato, but is an explanation of the Aristotelian text, as is shown by the words: *ἀλλὰ πῶς εἶπεν* [i.e. ARIST. *Phys.* iv. 11, 219, a, 13] *ὅση γὰρ ἡ κίνησις*, &c. It is not until the end of this section, *i.e.* in the middle of 168, a, that SIMPL. returns to Strato with the words: *ἀλλ' ὁ μὲν Ἀριστοτέλης ἔοικεν ἐκ τοῦ σαφεστέρου ποιήσασθαι τὴν ἐπιβολήν· ὁ δὲ Στράτων φιλοκάλως καὶ αὐτὴν καθ' αὑτὴν τὴν κίνησιν ἔδειξε τὸ συνεχὲς ἔχουσαν, ἴσως καὶ πρὸς τοῦτο βλέπων, ἵνα μὴ μόνον ἐπὶ τῆς κατὰ τόπον κινήσεως, ἀλλὰ καὶ ἐπὶ τῶν ἄλλων πασῶν συνάγηται τὰ λεγόμενα.*

A fundamental departure from the Aristotelian cosmology is attributed to Strato by Stobæus, who tells us that he held that the heavens are made of fire, and that the stellar radiance is a reflection of the sun's light.[3] As to the former of these doctrines we may wonder that it is nowhere else mentioned, as it in reality involves nothing less than the abandonment of the theory of the ether and all the deductions founded upon it; yet we are not therefore justified in denying that the difficulties which beset the Aristotelian assumptions as to the light- and heat-giving power of the stars[4] may have caused Strato to attribute a fiery instead of an etherial nature to heaven and the heavenly bodies. Nor need the statement as to the light of the stars cause us any serious difficulty in view of the state of astronomy at that time. Yet the evidence of Stobæus gives us no sure guarantee of the truth of these statements.[5] The assertion that Strato conceived of the parts of the world as infinite[1] is obviously untrue, if this involves, as it appears to do, the infinite extension of the world in space.[2] Other reported doctrines of Strato relating to the fixity of the earth,[3] comets,[4] meteorological phenomena and earthquakes,[5] the formation of seas,[6] to colours[7] and sounds,[8] cannot be fully discussed here.

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[1] SIMPL. 191, a (referring to *Phys.* v. 1): *καὶ καλῶς γε, οἶμαι, ὁ Στράτων τὴν κίνησιν οὐ μόνον ἐν τῷ κινουμένῳ φησὶν εἶναι, ἀλλὰ καὶ ἐν τῷ ἐξ οὗ καὶ ἐν τῷ εἰς ὃ, ἄλλον δὲ τρόπον ἐν ἑκάστῳ. τὸ μὲν γὰρ ὑποκείμενον, φησὶ, κινεῖται ὡς μεταβάλλον, τὸ δὲ ἐξ οὗ καὶ τὸ εἰς ὃ, τὸ μὲν ὡς φθειρόμενον, τὸ δὲ ὡς γινόμενον.* On the corresponding definitions of Aristotle, see vol. i. p. 417, n. 2, *supra*.

[2] See the Fragm. of the book *π. κινήσεως* *apud* SIMPL., *ibid.* 214, a.

[3] *Ecl.* i. 500: *Παρμενίδης, Ἡράκλειτος, Στράτων, Ζήνων πύρινον εἶναι τὸν οὐρανόν.* I. 518: *Στράτων καὶ αὐτὸς τὰ ἄστρα ὑπὸ τοῦ ἡλίου φωτίζεσθαι.*

[4] *Supra*, vol. i. p. 509 sq.

[5] In the first place what Strato says only of the fiery sphere could not be transferred to

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the heavens; and, in the second place, that which related only to the planets cannot be extended to all the stars.

[1] EPIPHAN. *Exp. Fid.* 1090, A: ἄπειρα δὲ ἔλεγεν εἶναι τὰ μέρη τοῦ κόσμου.

[2] For this view was not held by Strato, as shown *supra*, p. 461, n. 1. The statement is probably only a misinterpretation of his teaching as to the unlimited divisibility of matter, as to which see *supra*, p. 459, n. 3.

[3] That Strato (like Aristotle) held this view, and that he supported it by a special argument of his own, appears from CRAMER, *Anecd. Oxon.* iii. 413: τῇ δὲ προμένῃ [l. προκειμένῃ] νῦν αἰτιολογίᾳ τῇ περὶ τῆς ἀκινησίας τῆς γῆς Στράτων δοκεῖ πρῶτος ὁ φυσικὸς χρήσασθαι. The argument unfortunately is not given.

[4] STOB. *Ecl.* i. 578 (PLUT. *Plac.* iii. 2, 5; GALEN, *H. Phil.* 18, p. 286). A comet according to Strato was: ἄστρου φῶς περιληφθὲν νέφει πυκνῷ, καθάπερ ἐπὶ τῶν λαμπτήρων γίνεται.

[5] See *supra*, vol. ii. p. 457, n. 9.

[6] According to STRABO, i, 3, 4, p. 49 (from ERATOSTHENES, who, however, without doubt is only quoting Strato as far as the words, on p. 50, τὴν Σκυθῶν ἐρημίαν; the rest is his own), Strato propounded the hypothesis, which he justified by palæontological observations, that the Black Sea was originally separated from the Mediterranean, and this sea from the Atlantic, by isthmuses, which were broken through in course of time.

[7] As to this, the excerpts from JOHAN. DAMASC. i. 17, 3 (STOB. *Floril.* iv. 173, ed. Meineke) give us only the not very clear remark: Στράτων χρώματά φησιν ἀπὸ τῶν σωμάτων φέρεσθαι συγχρῴζοντ᾽ αὐτοῖς τὸν μεταξὺ ἀέρα.

[8] ALEX. APHR. *De Sensu*, 117 (p. 265, 9 sqq., ed. Thurot), intimates that Strato explained the fact that it is impossible to distinguish tones at a great distance —not, like Aristotle (*De Sensu*, 6, 446, b, 6) by the theory that the form of movement in the air was altered on the way—but τῷ ἐκλύεσθαι τὸν τόνον τῆς πληγῆς . . . . οὐ γάρ φησιν ἐν τῷ σχηματίζεσθαί πως τὸν ἀέρα τοὺς διαφόρους φθόγγους γίνεσθαι, ἀλλὰ τῇ τῆς πληγῆς ἀνισότητι. (What follows is not the view of Strato, but of Alexander, as THUROT reminds us at p. 451 of his edition.) These words harmonise exactly with the beginning of the pseudo-Aristotelian fragment π. ἀκουστῶν, 800, a, 1: τὰς δὲ φωνὰς ἁπάσας

Upon his physiological views also we have only isolated and unimportant statements.[1] His doctrine of

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συμβαίνει γίγνεσθαι καὶ τοὺς ψόφους . . . . οὐ τῷ τὸν ἀέρα σχηματίζεσθαι, καθάπερ οἴονταί τινες, ἀλλὰ τῷ κινεῖσθαι παραπλησίως αὐτὸν συστελλόμενον καὶ ἐκτεινόμενσν, &c. This coincidence, however, does not go far enough to justify the supposition (BRANDIS, ii. b, 1201) that that treatise is the work of Strato, however well and carefully considered, and however worthy of him it may appear. It is not, therefore, necessary here to go into the manner in which the tones of the human voice and of musical instruments and their various modifications are in that tract explained. The general basis of the theory is most clearly set out at p. 803, b, p. 34 sqq. According to this passage, which reminds one of Heraclides's theory (ZELLER, *Ph. d. Gr.* i. p. 887, 1) every sound is composed of particular beating vibrations (*πληγαὶ*), which we cannot distinguish as such, but perceive as one unbroken sound; high tones, whose movement is quicker, consist of more vibrations, and low tones of fewer. Several tones vibrating and ceasing at the same time are heard by us as one tone. The height or depth, harshness or softness, and in fact every quality of a tone depends (803, b, 26) on the quality of the motion originally created in the air by the body that gave out the tone. This motion propagates itself unchanged, inasmuch as each portion of the air sets the next portion of air in motion with the same movement as it has itself.

[1] GALEN, *De Sem.* ii. 5, vol. iv. 629, informs us that Strato explained the origin of the difference of the sexes (*supra*, vol. ii. p. 55, n. 2) in a somewhat more material manner than Aristotle (without, however, adopting the views of Democritus, *d. q. v.* ZELL. *Ph. d. Gr.* i. 805, 2), by the theory that either the male seed has the preponderance over the female (which Aristotle would not admit, *supra*, vol. ii. p. 50 sq.) or the female over the male. According to PLUT. *Plac.* v. 8, 2 (GALEN, *H. Phil.* 32, p. 325), he allowed that abortions originated *παρὰ πρόσθεσιν, ἢ ἀφαίρεσιν, ἢ μετάθεσιν* [misplacement of parts] *ἢ πνευμάτωσιν* [evaporation, or perhaps addling of the seed caused by air contained therein]. Finally in JAMBLICH. *Theol. Arithm.* p. 47 (which MACROB. *Somn. Scip.* 1, 6, 65, repeats; cf. also CENSORIN. *Di. Nat.* 7, 5) we have his views on the first stages of the development of the embryo week by week.—Similar opinions on this subject are also attributed to the physician Diocles, of Carystus, who, according to AST'S notes on the *Theol. Arithm.*, flourished about Ol. 136 (*i.e.* about 232 B.C.), and who, according to IDELER, *Arist. Meteorol.* i. 157, was a pupil of Strato's, and one of the persons charged (see DIOG. v. 62) with the execution of his testament. SPRENGEL, however (*Gesch. d. Arzneik.* fourth edition, p. 463), believes him to have

the human soul,[1] on the other hand, owing to its divergence from that of Aristotle, claims our attention. That he should adopt an independent view was to be expected from what we already know of his general theory as to the efficient forces of the world. If these in general are inseparable from matter, this must be true also of the powers of the soul. While it does not follow from this that Strato must necessarily have explained the soul, with Aristoxenus and Dicæarchus, as the harmony of the body,[2] yet he could not admit Aristotle's doctrine that it is motionless, and that a part of it is separate from all other parts and from the body. All activities of the soul, he asserts still more emphatically than Theophrastus,[3] are movements—thought, as well as perception—since they all consist in the action of a hitherto inactive force; and in proof of the view that between the activity of sense and reason there is in this respect no essential difference, he appealed to the fact which had been already observed by Aristotle,[4] that we

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been of an earlier date, and rightly; for even if it be true, as is alleged without proof, that 'he lived a short time after Hippocrates,' nevertheless GALEN (in his *Aphorisms*, vol. xviii. *a*, 7) expressly counts him amongst the predecessors of Erasistratus; and what we know of his views (SPRENGEL, *ibid.*) confirms this.

[1] Which subject he treated in the works π. φύσεως ἀνθρωπίνης and π. αἰσθήσεως.

[2] OLYMPIODOR. *Schol. in Phædon.*, p. 142, does indeed say: ὅτι ὡς ἁρμονία ἁρμονίας ὀξυτέρα καὶ βαρυτέρα, οὕτω καὶ ψυχὴ ψυχῆς, φησὶν ὁ Στράτων, ὀξυτέρα καὶ νωθεστέρα. Whether he really meant to show that the soul is a harmony, or whether this remark is only meant to serve as an argument against the Platonic objection (*Phæd.* 92 E sqq.), or, finally, whether the phrase merely belonged to the statement of someone else's opinion, we do not learn. TERTULL. *De An.* 15, distinguishes Strato's view from that of Dicæarchus, and we shall see that he is right.

[3] *Supra*, vol. ii. p. 391, n. 2.

[4] *Supra*, vol. i. p. 195, n. 1, and p. 206, n. 2.

are unable to think anything of which we have had no previous perception.[1] But, on the other hand, he remarked that perception and sensation are conditioned by thought, since often when we are thinking of something else the impressions which our senses have received fail to rise into consciousness.[2] In general, however, the soul and not the body is the seat of sensation; for when we believe ourselves to feel a pain in the part affected, this is merely the same delusion as when we think that we hear sounds outside, whereas in reality we apprehend them only in the ear. Pain is caused by the sudden transmission of the external impression from the part affected to the soul; if the connection is broken we feel no pain.[3] Strato accordingly combated the distinction which Aristotle drew between the rational and the sensitive part of the soul. The soul, according to his view, is a single force; reason (which, with the Stoics — preceded, however, by Aristotle[1] — he seems to have called τὸ ἡγεμονικὸν[2]) is the totality of the soul, and the different senses are only particular expressions of this central force.[3] The seat of the soul

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[1] SIMPL. *Phys.* 225, a: *καὶ Στράτων δὲ . . . τὴν ψυχὴν ὁμολογεῖ κινεῖσθαι οὐ μόνον τὴν ἄλογον, ἀλλὰ καὶ τὴν λογικὴν, κινήσεις λέγων εἶναι τὰς ἐνεργείας τῆς ψυχῆς, λέγει οὖν ἐν τῷ περὶ Κινήσεως πρὸς ἄλλοις πολλοῖς καὶ τάδε· 'ἀεὶ γὰρ ὁ νοῶν κινεῖται, ὥσπερ καὶ ὁ ὁρῶν καὶ ἀκούων καὶ ὀσφραινόμενος· ἐνέργεια γὰρ ἡ νόησις τῆς διανοίας καθάπερ καὶ ἡ ὅρασις τῆς ὄψεως'* [he means that both are *δυνάμει ὄντος ἐνέργειαι*, movements]. *καὶ πρὸ τούτου δὲ τοῦ ῥητοῦ γέγραφεν· 'ὅτι οὖν εἰσιν αἱ πλεῖσται τῶν κινήσεων αἴτιαι. ἃς ἡ ψυχὴ καθ' αὑτὴν κινεῖται διανοουμένη καὶ ἃς ὑπὸ τῶν αἰσθήσεων ἐκινήθη πρότερον, δῆλόν ἐστιν. ὅσα γὰρ μὴ πρότερον ἑώρακε ταῦτα οὐ δύναται νοεῖν, οἷον τόπους ἢ λιμένας ἢ γραφὰς ἢ ἀνδριάντας ἢ ἀνθρώπους ἢ τῶν ἄλλων τι τῶν τοιούτων.'* The words *ὅτι οὖν—αἴτιαι* are more or less incomprehensible, as we do not know the context.

[2] PLUT. *Solert. An.* 3, 6, p. 961 (and from him PORPH. *De Abst.* iii. 24): *καίτοι Στράτωνός γε τοῦ φυσικοῦ λόγος ἐστὶν ἀποδεικνύων, ὡς οὐδ' αἰσθάνεσθαι τοπαράπαν ἄνευ τοῦ νοεῖν ὑπάρχει· καὶ γὰρ γράμματα πολλάκις ἐπιπορευομένους τῇ ὄψει καὶ λόγοι προσπίπτοντες τῇ ἀκοῇ διαλανθάνουσιν ἡμᾶς καὶ διαφεύγουσι πρὸς ἑτέροις τὸν νοῦν ἔχοντας, εἶτ' αὖθις ἐπανῆλθε καὶ μεταθεῖ καὶ [μετα]διώκει τῶν προϊεμένων ἕκαστον ἐκλεγόμενος.* [The rest is most probably not taken from Strato.] *ᾗ καὶ λέλεκται· νοῦς ὁρῇ* &c. (*v.* ZELL. *Ph. d. Gr.* i. 462, 5), *ὡς τοῦ περὶ τὰ ὄμματα καὶ ὦτα πάθους, ἂν μὴ παρῇ τὸ φρονοῦν, αἴσθησιν οὐ ποιοῦντος.*

[3] PLUT. *Utr. An. an Corp. sit Libido* (Fragm. i. 4, 2, p. 697): *οἱ μὲν γὰρ ἅπαντα συλλήβδην ταῦτα* [sc. *τὰ πάθη*] *τῇ ψυχῇ φέροντες ἀνέθεσαν, ὥσπερ Στράτων ὁ φυσικὸς, οὐ μόνον τὰς ἐπιθυμίας. ἀλλὰ καὶ τὰς λύπας, οὐδὲ τοὺς φόβους καὶ*

τοὺς φθόνους καὶ τὰς ἐπιχαιρεκακίας, ἀλλὰ καὶ πόνους καὶ ἡδονὰς καὶ ἀλγηδόνας καὶ ὅλως πᾶσαν αἴσθησιν ἐν τῇ ψυχῇ συνίστασθαι φάμενος καὶ τῆς ψυχῆς τὰ τοιαῦτα πάντα εἶναι· μὴ τὸν πόδα πονούντων ἡμῶν ὅταν προσκρούσωμεν, μηδὲ τὴν κεφαλὴν ὅταν κατάξωμεν, μὴ τὸν δάκτυλον ὅταν ἐκτέμωμεν· ἀναίσθητα γὰρ τὰ λοιπὰ πλὴν τοῦ ἡγεμονικοῦ, πρὸς ὃ τῆς πληγῆς ὀξέως ἀναφερομένης τὴν αἴσθησιν ἀλγηδόνα καλοῦμεν· ὡς δὲ τὴν φωνὴν τοῖς ὠσὶν αὐτοῖς ἐνηχοῦσαν ἔξω δοκοῦμεν εἶναι τὸ ἀπὸ τῆς ἀρχῆς ἐπὶ τὸ ἡγεμονικὸν διάστημα τῇ αἰσθήσει προσλογιζόμενοι, παραπλησίως τὸν ἐκ τοῦ τραύματος πόνον οὐχ ὅπου τὴν αἴσθησιν εἴληφεν, ἀλλ' ὅθεν ἔσχε τὴν ἀρχὴν εἶναι δοκοῦμεν, ἑλκομένης ἐπ' ἐκεῖνο τῆς ψυχῆς ἀφ' οὗ πέπονθε. διὸ καὶ προσκόψαντες αὐτίκα τὰς ὀφρῦς [here must be the seat of the soul, *v. infra*] συνήγαγον ἐν τῷ πληγέντι μορίῳ τοῦ ἡγεμονικοῦ τὴν αἴσθησιν ὀξέως ἀποδιδόντος. καὶ παρεγκόπτομεν ἔσθ' ὅτε τὸ πνεῦμα κἂν τὰ μέρη δεσμοῖς διαλαμβάνηται χερσὶ σφόδρα πιέζομεν [WYTTENB. conjectures ἂν τ. μ. δ. διαλ. καὶ ταῖς χερσὶ &c.; but it would, perhaps, be better to read ἂν τὰ μέρη δεσμ. διαλαμβάνηται ἢ ταῖς χερσὶ σφόδρα πιέζωμεν] ἱστάμενοι πρὸς τὴν διάδοσιν τοῦ πάθους καὶ τὴν πληγὴν ἐν τοῖς ἀναισθήτοις πλήττοντες [WYTT. conj. φυλάττοντες] ἵνα μὴ συνάψαι [-ασα WYTT.] πρὸς τὸ φρονοῦν ἀλγηδὼν γένηται. ταῦτα μὲν οὖν ὁ Στράτων ἐπὶ πολλοῖς ὡς εἰκὸς τοιούτοις. *Plac.* iv. 23, 3: Στράτων καὶ τὰ πάθη τῆς ψυχῆς καὶ τὰς αἰσθήσεις ἐν τῷ ἡγεμονικῷ, οὐκ ἐν τοῖς πεπονθόσι τόποις συνίστασθαι. ἐν γὰρ ταύτῃ [τούτῳ?] κεῖσθαι τὴν ὑπομονήν, ὥσπερ ἐπὶ τῶν δεινῶν καὶ ἀλγεινῶν καὶ ὥσπερ ἐπὶ ἀνδρείων καὶ δείλων.

[1] *V. supra*, vol. ii. p. 127, n. 3.

[2] See preceding and following notes.

[3] See p. 468, n. 3, *supra*; SEXT. *Math.* vii. 350: οἱ μὲν διαφέρειν αὐτὴν [τὴν ψυχὴν] τῶν αἰσθήσεων, ὡς οἱ πλείους· οἱ δὲ αὐτὴν εἶναι τὰς αἰσθήσεις καθάπερ διά τινων ὀπῶν τῶν αἰσθητηρίων προκύπτουσαν, ἧς στάσεως ἦρξε Στράτων τε ὁ φυσικὸς καὶ Αἰνησίδημος. TERTULL. *De An.* 14: 'non longe hoc exemplum est a Stratone et Ænesidemo et Heraclito; nam et ipsi unitatem animæ tuentur, quæ in totum corpus diffusa et ubique ipsa, velut flatus in calamo per cavernas, ita per sensualia variis modis emicet, non tam concisa quam dispensata.' Since Strato did not, at the same time, like Dicæarchus, regard the soul as a separate substance, but only as a force which is inseparable from the body through having therein

Strato placed in the region between the eyebrows[1] and in the part of the brain which is there situated. Thence he held that it permeates the whole body, and especially the organs of sense,[2] connecting it probably with the *anima vitæ*.[3] Sleep is the retreat of this spirit,[4] but in

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its appointed place, and in which the unity of the life of the soul is to be distinguished from its individual manifestations (see following note), TERT. *De An.* 15, is able to cite Strato, along with Plato, Aristotle, and others, in opposition to those who, like Dicæarchus, 'abstulerunt principale, dum in animo ipso volunt esse sensus, quorum vindicatur principale.' On the other hand, Sextus can also say that according to Strato the soul is identical with the *αἰσθήσεις*, inasmuch as Strato, like Aristotle, did not allocate different parts of the soul to feeling and thought.

[1] PLUT. *Plac.* iv. 5, 2 (GALEN, *H. Phil.* c. 28, p. 315; THEODORET, *Cur. Gr. Aff.* v. 23, p. 73): *Στράτων* [*τὸ τῆς ψυχῆς ἡγεμονικὸν εἶναι λέγει*] *ἐν μεσοφρύῳ.* POLLUX, *Onomast.* ii. 226: *καὶ ὁ μὲν νοῦς καὶ λογισμὸς καὶ ἡγεμονικὸν . . . εἴτε κατὰ τὸ μεσόφρυον, ὡς ἔλεγε Στράτων.* TERTULL. *De An.* 15: 'nec in superciliorum meditullio [principale cubare putes], ut Strato physicus.' Cf. *supra*, vol. ii. p. 468, n. 2.

[2] Such is the result when we combine the passages quoted *supra*, vol. ii. p. 468, n. 2 and n. 3, with the statement as to the seat of the soul. The expressions employed *supra*, p. 468, n. 2—namely *προκύπτειν*, *emicare*, which imply, on the one hand, that outer impressions reach the *ἡγεμονικὸν*, and, on the other hand, that the soul is affected by the part in connection therewith—prove that the soul is not always spread all over the body, but has its seat in the head, whence after receipt of the impressions it streams to the organs of sense, &c. How Strato believed this was brought about, we do not learn. We can only suppose that he had in his mind either the nerves, which had at that time been discovered by Herophilus and Erasistratus, and which (or at any rate the ophthalmic nerves) were, as appears from SPRENGEL, *Gesch. d. Arzneik.* 4th ed. i. pp. 511-2, 524 held by them to be conducting tubes—or, more probably, that he was thinking of the arteries, which, according to Erasistratus, carried, not the blood, but the *πνεῦμα ζωτικὸν* through the body (*ibid.* p. 525 sq.).

[3] This view is referred to in the following note. It also accords with what is said *supra*, vol. ii. p. 468, n. 2, about the interruption of the *πνεῦμα* flowing to the *ἡγεμονικὸν*, and on p. 458, n. 1 about the *δύναμις πνευματικὴ* of the seed.

[4] TERTULL. *De An.* 43: 'Strato [here the natural philosopher and not the physician is meant] segregationem consati spiritus [somnum affirmat].'

what way dreams were brought into connection with this view it is impossible to say.[1]

As on this theory reason no longer constitutes the distinctive mark of the human soul, as a peculiar higher element in it, so Strato was free, on the one hand, to assert that all living creatures participate in reason, which for him coincided with consciousness, and without which he found sense-perception inconceivable;[2] while, on the other hand, he was forced to extend to the whole of the soul what Aristotle had taught as to the finitude of its lower elements. We find him accordingly not only combating the Platonic doctrine of reminiscence,[3] but criticising in a hostile spirit the proofs of the immortality of the soul advanced in the *Phædo*,[4] in a way which leads us to suppose that along with these proofs he had abandoned the belief in immortality itself.

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[1] PLUT. *Plac.* v. 2, 2 (GALEN, *Hist. Ph.* 30, p. 320) says: Στράτων [τοὺς ὀνείρους γίνεσθαι] ἀλόγῳ [τινὶ add. GAL.] φύσει τῆς διανοίας ἐν τοῖς ὕπνοις αἰσθητικωτέρας μέν πως (τῆς ψυχῆς add. GAL.) γιγνομένης, παρ᾽ αὐτὸ δὲ τοῦτο τῷ γνωστικῷ κινομένης [GAL. gives incorrectly γνωστικῆς γινομένης]. The meaning appears to be that, during sleep the irrational nature of the mind is stronger, and the action of thought being interrupted, the mind receives and takes in many images or impressions, all more or less confused, which if awake it would allow to pass unnoticed (cf. *supra*, vol. ii. p. 75 sq. and p. 439, n. 3).

[2] EPIPHAN. *Exp. Fid.* 1090, A: πᾶν ζῷον ἔλεγεν οὐ [l. ἔλεγε νοῦ] δεκτικὸν εἶναι.

[3] See the extracts, probably from the work π. φύσεως ἀνθρωπίνης, in OLYMPIODOR. *Schol. in Phæd.* ed. Finckh. p. 127 (also PLUT. *Fr.* vii. 19) p. 177 (following Alexander of Aphrodisias, as this commentary so often does, as may be seen by the context), p. 188, α′, β′.

[4] The arguments against the proofs brought forward in the *Phædo*, 102, A sqq. which are given by OLYMPIODOR. *in Phæd.* p. 150–1, p. 191, are as follows: If the soul is immortal because as essentially life it cannot die, the same can be applied to all living bodies, of animals and of plants, for they also cannot, so long as they live, be dead; to every natural being, for the natural state of such excludes anything unnatural; to all things composed and created, for composition is incompatible with dissolution and existence with destruction. But death is not something which approaches life while it lasts, but it is a loss of

From the *Ethics* of Strato only a definition of the Good, which in substance agrees with that of Aristotle, has been preserved to us.[1]

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life. It has not been proved that life is a quality inseparable from the concept of the soul, a quality inherent (*ἐπιφέρουσα*); and not imparted (*ἐπιφερομένη*), and even if this be the case, it can only impart life as long as it exists and as long as it is without death. Admitting all this, there always remains the consideration that, as a finite thing, it can only possess a finite and limited power, and consequently must in the end become weaker and die.—Strato also brought arguments against the assertion in the *Phæd.* 70 C sqq., that as the dead proceed from the living, so must the living proceed from the dead. This statement he proves (*ibid.* 186) to be incorrect, for existing matter does not originate from destroyed matter. Further, if a part—for example, an amputated limb—does not again live, this is not the case with the whole. Also that which is derived from another resembles it only in species and not in quantity. And, again, we do not always find any such law of reciprocity, for food becomes flesh, metal turns into rust, wood into coal, and the young man becomes an old one, but the reverse changes never happen. Thus nothing can come of the contrary, unless the substratum is retained and not destroyed. That without such a reciprocity further origin of individuals must cease is not correct: it is only requisite that similar beings, and not the same individuals should be produced.

[1] STOB. *Ecl.* ii. 80: *Στράτων [ἀγαθὸν φησὶ] τὸ τελειοῦν τὴν δύναμιν δι᾽ ἣν τῆς ἐνεργείας τυγχάνομεν.* Cf. herewith, *supra*, vol. ii. p. 141 sq.

CHAPTER XXI

THE PERIPATETIC SCHOOL AFTER STRATO TILL TOWARDS THE END OF THE SECOND CENTURY

EVEN after Strato there were not wanting men of the Peripatetic school who won distinction by their extensive knowledge and their powers of teaching and exposition; but there is no evidence that it henceforth produced any philosopher who merited the name of an independent thinker. It continued to be one of the chief centres of the learning of the time; and of the contemporary schools none but the Stoic, which had risen to eminence under Chrysippus, could rival it in this respect. It cultivated especially the historical, literary and grammatical studies which marked the Alexandrian age above all others, and in connection with these it jealously devoted itself to rhetoric and ethics, but even in these fields contributed little that was original. Its efforts in science and metaphysics, if they did not remain altogether barren, seem to have been wholly confined to the propagation of older doctrines. Nor can we make the scantiness of our information responsible for this seeming poverty; for not only have we express complaints of the unfruitfulness of the Peripatetic school in the period referred to,[1] but we are forced to suppose that if there had been anything important to relate of Strato's successors there would have been a richer stream of historical allusion to them, and especially that the learned commentators upon Aristotle, who preserve so deep and significant a silence as to the Peripatetics between Strato and Andronicus,[1] would have found more frequent occasion to mention them.

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[1] STRABO, xiii. 1, 54, p. 609, says that after Theophrastus the Peripatetics being under the disability that they possessed of

Strato's successor, Lyco of Troas, who was president of the Peripatetic school for nearly half a century,[2] and

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Aristotle only a limited number of treatises, and these mostly 'exoterical,' *μηδὲν ἔχειν φιλοσοφεῖν πραγματικῶς* [in the way of real scientific advance], *ἀλλὰ θέσεις* [commonplaces] *ληκυθίζειν* [to embellish]. Plut. *Sulla*, 26: *οἱ δὲ πρεσβύτεροι Περιπατητικοὶ* [before Andronicus] *φαίνονται μὲν καθ' ἑαυτοὺς γενόμενοι χαρίεντες καὶ φιλολόγοι*, but 'it is plain that they did not possess the texts of Aristotle and Theophrastus.' The last suggestion is, of course, incorrect; as is also the idea that the philosophic barrenness of the school began only after Theophrastus (*v. supra*, i. pp. 138–9 sqq.). 'Ignoratio dialecticæ' is also charged against the Peripatetics by Cic. *Fin.* iii. 12, 41.

[1] Zeller has been unable to find, among the countless citations of ancient philosophers in the various commentaries, a single one which refers to any of these writers.

[2] Lyco of Troas (Diog. v. 65, Plut. *De Exil.* 14, p. 605) was a pupil both of Strato and also of the dialectician Pantoides (Diog. 68). He was named by Strato his heir in the school (*supra*, vol. ii. p. 451, n. 1), and succeeded him in his chair as a young man, about 270–268 B.C., and after conducting the school for forty-four years, died at the age of seventy-four, about 224 B.C. (Diog. 68 and *supra*, vol, ii. p. 451, n. 1). Lyco was a famous orator (see next note but one); busied himself greatly with public affairs and, according to Diog. 66, did great service to Athens, where he must have become a citizen (if by *συμβουλεύειν* Diog. here means that he spoke in the public assemblies). We hear that he was esteemed and rewarded by the earlier Pergamenian kings, admired by Antigonus, invited by Antiochus to his court in vain (Diog. 65, 67: meaning, no doubt, Antiochus II., surnamed Theos), and his will (*apud* Diog. 69 sqq.) shows that he was a wealthy man. According to Hermipp. (*apud* Diog. 67) he lived as one; but the account which Antigonus (*apud* Athen. xii. 547, d) gives of his pride is, no doubt, grossly exaggerated. The

left behind him a number of works,[1] was distinguished by the grace and brilliancy of his style rather than by the originality of his contributions.[2] The little that has come down to us of his writings is confined to a definition of the Highest Good,[3] and a few remarks upon ethical subjects.[4]

Contemporary with Lyco, but diverging more widely from Aristotle, was Hieronymus of Rhodes.[5] Our

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same authority (*ibid.* 548, b) and DIOG. 67 show him to have been greatly occupied with gymnastic arts. His testamentary direction as to his funeral (DIOG. 70) is that it should be seemly but *not* extravagant.

[1] To a slave, who had, no doubt, helped him in his work and to whom he gave his freedom, he bequeaths (*apud* DIOG. 73) *τἀμὰ βιβλία τὰ ἀνεγνωσμένα*; the unpublished writings, on the other hand, he left to his pupil Callinus, to edit for publication.

[2] CIC. *Fin.* v. 5, 13: 'Hujus [Stratonis] Lyco est oratione locuples, rebus ipsis jejunior.' Also DIOG. 65–6, praises the *ἐκφραστικὸν καὶ περιγεγωνὸς ἐν τῇ ἑρμηνείᾳ*, and the *εὐωδία* of his speech, for which he was also called Γλύκων (as in PLUT. *ibid.*), but he adds the remark: *ἐν δὲ τῷ γράφειν ἀνόμοιος αὑτῷ*. The examples cited by DIOG. confirm his judgment. Cf. THEMIST. *Orat.* xxi. 255 B, as to his celebrity in his own time.

[3] CLEMENS, *Strom.* i. 416 D: *Λύκος* [Lyco must be meant] *ὁ Περιπατητικὸς τὴν ἀληθινὴν χαρὰν τῆς ψυχῆς τέλος ἔλεγεν εἶναι, ὡς Λεύκιμος* [?] *τὴν ἐπὶ τοῖς καλοῖς*. This does not conflict with, though it certainly does not exhaust, the Aristotelian definition of happiness; but we do not know whether Lyco meant it to be an exhaustive definition or not. On the trifling worth of worldly possessions, see following note.

[4] *Apud* CIC. *Tusc.* iii. 32. 78, talking of 'ægritudo,' Lyco says, 'parvis eam rebus moveri, fortunæ et corporis incommodis, non animi malis.' *Apud* STOB. *Floril.*, *Exc. e Jo. Damasc.* ii. 13, 140 (iv. 226, ed. Mein.), Lyco says of *παιδεία* that it is *ἱερὸν ἄσυλον*. DIOG. 65–6 describes him as *φραστικὸς ἀνὴρ καὶ περὶ παίδων ἀγωγὴν ἄκρως συντεταγμένος*, quoting at the same time some of his sayings.

[5] CIC. *Fin.* 3, 8; ATHEN. x. 424–5; DIOG. ii. 26; STRABO, xiv. 2, 13, p. 656, and others, all speak of HIERONYMUS as a Rhodian. He was a contemporary of Lyco, Arcesilaus, and the sceptic Timon at Athens (DIOG. v. 68, iv. 41–2, ix. 112). When ATHEN. x. 424–5 calls him a disciple of Aristotle, he is merely using the phrase loosely as meaning a Peripatetic. Not to this man, but to the historian Hieronymus of Cardia, who was the

knowledge of this philosopher, who was distinguished, according to Cicero,[1] for his learning and versatility, is confined mainly to historical observations,[2] the titles of books, and unimportant isolated quotations.[3] We are told that he declared the *summum bonum* and the ultimate end of all action to consist in painlessness, which, however, he sharply distinguished from pleasure, going beyond Aristotle[4] in denying that the latter was in any

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companion in arms of Eumenes and Antigonus, must we refer the statement of Lucian, *apud* Macrob., 22, as to a person of this name who lived to be 104 years of age, as is clearly shown at the beginning of the chapter.

[1] Cic. in the *Orator*, 57, 190 calls him 'Peripateticus inprimis nobilis,' and in *Fin.* v. 5, 14, he speaks of: 'prætereo multos, in his doctum hominem et suavem Hieronymum.' Cf. also *Fin.* ii. 6, 19. Sundry details are to be gathered also from the passages cited *infra.*

[2] For example: Athen. ii. 48, b, v. 217, e, xiii. 556, a, 557, e, 602, a, 604, d (chiefly from the ἱστορικὰ ὑπομνήματα, which is named at 557, e, and 604 d), xiv. 635-6 (from the fifth book π. ποιητῶν, which treated of odes for the κιθάρα), x. 424–5, xi. 499–500 (from the work π. μέθης), x. 434–5 (from the Letters); Diog. i. 267 (from the second book of the σποράδην ὑπομνήματα, which are no doubt identical with the ἱστ. ὑπομν.), ii. 14 (the like), 26, 105 (ἐν τῷ π. ἐποχῆς), viii. 21, 57, ix. 16; Plut. *Qu. Conv.* Procem. 3, mentions his λόγοι παρὰ πότον γενόμενοι and also reckons him (*N. p. suav. Vivi*, 13, 6, p. 1096) amongst the writers on music. That the Hieronymus mentioned in Damascius and Josephus is not the same as this writer has been shown by Zeller, *Ph. d. Gr.* i. 84.

[3] As in Cic. *ibid.* (from a work on Rhetoric or Metre); the citation of about thirty verses in Isocrates; a remark in Plut. *Qu. Conv.* i. 8, 3, 1, p. 626, on the shortsightedness of the aged; a word in Seneca, *De Ira*, i. 19, 3, against anger, and in Stob. *Floril.*, *Exc. e Jo. Dam.* ii. 13. 121 (vol. iv. 209, ed. Mein.), against education by pedagogues.

[4] The chief source of information here is Cicero, who often refers to this view of Hieron. So *Acad.* ii. 42, 131: 'Vacare omni molestia Hieronymus [finem esse voluit].' And *Fin.* v. 11, 35, 25, 73, *Tusc.* v. 30, 87–8; *Fin.* ii. 3, 8: 'Tenesne igitur, inquam, Hieronymus Rhodius quod dicat esse summum bonum, quo putet omnia referri oportere? Teneo, inquit, finem illi videri, nihil dolere. Quid? idem iste de voluptate quid sentit? Negat esse eam, inquit, propter se ipsam expetendam;' 6, 19: Nec Aristippus, qui voluptatem summum bonum dicit, in voluptate ponit non dolere, neque

sense a good. To the same period belongs also Prytanis.[1]

After Lyco's death Aristo of Ceos[2] was elected by the choice of his fellow-disciples to the presidency of

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Hieronymus, qui summum bonum statuit non dolere, voluptatis nomine unquam utitur pro illa indolentia; quippe qui ne in expetendis quidem rebus numeret voluptatem.' v. 5, 14: 'Hieronymum; quem jam cur Peripateticum appellem, nescio, summum enim bonum exposuit vacuitatem doloris.' Cf. CLEMENS, *Strom.* ii. 415, C: *ὅ τε Ἱερώνυμος ὁ Περιπατητικὸς τέλος μὲν εἶναι τὸ ἀόχλητως ζῆν· τελικὸν δ' ἀγαθὸν μόνον τὴν εὐδαιμονίαν.* Here Clement seems to have derived his information from the same source as CICERO, *Acad.* ii. 42, 131; and there ANTIOCHUS is indicated as Cicero's authority. That Cicero was directly acquainted with an ethical as well as a rhetorical work of Hieronymus cannot really be inferred from *Fin.* ii. 6, 19. This *ἀοχλησία* is also referred to by JAMBL. *apud* STOB. *Ecl.* i. 920, and the *ἡσυχία* by PLUT, *Sto. Rep.* 2, 2, as the ideal of Hieronymus. The latter adds that, like Epicurus, he lived up to his theory.

[1] This Peripatetic was employed by Antigonus Doson (B.C. 230–221) in various State affairs, and POLYB. v. 93, 8, reckons him among the *ἐπιφανεῖς ἄνδρες ἐκ τοῦ περιπάτου.* He must have been at that time already considerably advanced in years, if his pupil EUPHORION was really born (as SUIDAS says) in Ol. 126, B.C. 277–273. PLUT. *Qu. Conv.* Procem. 3, names him among the distinguished philosophers who have written table talk.

[2] Aristo is called **Κεῖος** in Lyco's will (DIOG. v. 74) and it has since been the custom to name him thus, in order to distinguish him from the Stoic of the same name, **Ἀρίστων ὁ Χῖος,** who is, nevertheless, often confounded with him on account of the similarity of their surnames. Another surname, **Ἰουλιήτης** or **Ἰλιήτης** (DIOG. vii. 164) shows that his family came from Julis, the chief town in the island of Ceos, as is remarked by STRABO, x. 5, 6, p. 486, and STEPHANUS, *De Urb.* **Ἰουλις,** PLUT. *De Exil.* 14, p. 605 names **Ἀρίστων ἐκ Κέω** between Glyco and Critolaus; Lyco himself speaks of him as his pupil (see following note) and CIC. *Fin.* v. 5, 13. When we find that not he but Aristo is in SEXT. *Math.* ii. 61 called the *γνώριμος* of Critolaus, it is hardly possible to suppose that a younger Peripatetic of the same name is meant, but we must suppose that *γνώριμος,* which is ordinarily used of a pupil, has here a wider signification; QUINTILIAN, xi. 15, 19 seems to have used the same expression: 'Critolai peripatetici discipulus.' Again, we hear that he was a *ζηλωτὴς* of the Borysthenean Bio: see STRABO, x. 5, 6, and ZELLER, *Ph. d. Gr.* i. 294, 4. The meaning may be merely that he

the school.[1] He also is said to have been distinguished rather for the grace and finish of his style than for originality of thought.[2] Of his numerous writings only some of the titles,[3] and a few fragments, chiefly of an historical character,[4] have come down to

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admired Bio's writings, or it may be that he was personally acquainted with Bio, who must have been still living during Aristo's youth (cf. ZELLER, *Ph. d. Gr.* i. 294, 4).—It is not Aristo of Ceos, but of Chios, that worked with Arcesilaus (who died 241 B.C.) according to STRABO, i. 2, 2, p. 15; SEXT. *Pyrrh.* i. 234; DIOG. iv. 33. For further information about him and his works see HUBMANN, in *Jahn's Jahrb. Supplement.* iii. 1834, p. 102 sqq.; RITSCHL, *Aristo d. Peripat. apud* CIC. *De Sen.* 3 (*Rhein. Mus. N. F.* 1842, i. 193 sqq.); KRISCHE, *Forsch.* 405–6, 408.

[1] Aristotle appears to have at least indicated Theophrastus as his successor; Theophrastus bequeathed the *περίπατος* to ten friends; Strato to Lyco (*v. supra*, vol. i. p. 39, n. 1, and vol. ii. p. 350, n. 5); Lyco left it in his will (*apud* DIOG. v. 70) *τῶν γνωρίμων τοῖς βουλομένοις* and particularly to ten friends there named (all of whom except Aristo are otherwise unknown), with the proviso: *προστησάσθωσαν δ' αὐτοὶ ὃν ἂν ὑπολαμβάνωσι διαμενεῖν ἐπὶ τοῦ πράγματος καὶ συναύξειν μάλιστα δυνήσεσθαι.* If, however, what THEMIST. *Or.* xxi. 255 B, relates is true, he must have allowed Aristo a precedence even before himself.

[2] CIC. *Fin.* v. 5, 13: 'Concinnus deinde et elegans hujus [Lyconis, sc. discipulus] Aristo; sed ea quæ desideratur a magno philosopho gravitas in eo non fuit. Scripta sane et multa et polita; sed nescio quo pacto auctoritatem oratio non habet. The same is meant by STRABO (*ut supra*) in the comparison with Bio.

[3] Of his works we know a 'Lyco' (mentioned by PLUT. *Aud. Po.* 1 *init.* p. 14, where no one else can be meant; cf. CIC. *Cato M.* 1, 3, and also RITSCHL, *ibid.*), which is there classed with Æsop's Fables and the *Abaris* of Heraclides, and which must, therefore, like this latter, have been a collection of fables; and also the Ἐρωτικὰ ὅμοια, cited by ATHEN. x. 419, c. xiii. 563–4, xv. 674, b. It appears, however, from DIOG. vii. 163, that all the works there said to be by the Stoic Aristo (except the Letters of PANÆTIUS and SOSICRATES) were also ascribed to our Aristo of Ceos; probably, however, only some of them were so ascribed, and it is only of some that the ascription could in any case be true.

[4] All the *Fragments* in ATHENÆUS (see Index)—except that at ii. 38, 9 (a note on beverages)—as also the notices *apud* PLUT. *Themist.* 3, *Aristid.* 2, SOTION, *De Fluv.* 25, are concerned with historical matter. No doubt DIOGENES (v. 64, *supra*, vol. i. p. 37, n. 4) took from Aristo the

us. His successor,[1] Critolaus of Phaselis in Ly-

testaments of the Peripatetic philosophers, besides other information about them; and this is probably the reason why his history of the Lyceum does not go beyond Lyco. There has also been handed down to us, in Stob. *Ecl.* i. 828 (where it is our Aristo that is meant), a division of the *ἀντιληπτικὴ δύναμις τῆς ψυχῆς* into the *αἰσθητικὸν* and the *νοῦς*, the first working in connection with the bodily organs, and the latter working without organs; and also in Sext. *Math.* ii. 61, Quintil. ii. 15, 19 (cf. *infra*, p. 483, n. 1) a definition of Rhetoric, which allows us to suppose that he wrote some work on the subject.—The *Fragments* from Aristo in Stobæus, *Floril.* (see Index), belong to the Stoic of that name, as is clearly shown in various passages: for example, 4, 110; 80, 5; 82, 7, 11, 15, 16. The information about an Aristo given by Simpl. *Categ.*, *Schol. in Ar.* 65, b, 10, 66, a, 38 evidently refers to a younger Peripatetic, one of the successors of Andronicus, and probably the same as he whom Seneca, *Ep.* 29, 6, makes fun of. It is not clear which Aristo is meant in Plut. *Amator.* 21, 2, p. 767, *Præc. ger. Reip.* 10, 4, p. 804. In Plut. *Demosth.* 10, 30 the printed texts, at any rate, give '*Χῖος*.' As to the work *π. κενοδοξίας*, as the extract therefrom *apud* Philodem. *De Vit.* x. 10, 23, Sauppe makes it probable (*Philocl. de Vit. Lib. Dec.* pp. 6–7, 34) that they refer to our Aristo.

[1] That Critolaus was Aristo's direct successor is not expressly said by any of our authorities; for Clement, who gives a list of the Peripatetic 'Diadochoi' in *Strom.* i. 201 B (or, at least, the printed text of that passage) passes over Aristo ('after Aristotle *διαδέχεται Θεόφραστος· ὃν Στράτων· ὃν Λύκων· εἶτα Κριτόλαος· εἶτα Διόδωρος*'). Plut. *De Exil.* 14, p. 605, does not give a full list, but only names those Peripatetics who came to Athens from abroad, when he says: *Ἀριστοτέλης ἦν ἐκ Σταγείρων . . . Γλύκων ἐκ Τρωάδος, Ἀρίστων ἐκ Κέω, Κριτόλαος Φασηλίτης.* Neither does Cic. *Fin.* v. 5, 13–4 intend to state the order of sequence of the heads of the school, for he is only speaking of the relation of the later Peripatetics to Aristotle and Theophrastus; and so, after naming Strato, Lyco, and Aristo, he continues, 'Prætereo multos, in his . . . Hieronymum;' also after a few remarks about him, he adds, 'Critolaus imitari antiquos voluit,' &c. Thus there appears to be a possible vacancy for further names between Aristo and Critolaus, and this is made somewhat more probable when we consider the time which elapsed between Lyco's and Critolaus's death, which seems very long for only two school directors. Lyco died 226–4 B.C., but Critolaus (see foll. note) was in Rome 156–5 B.C. Supposing that he took this journey during the latter part of his life, we have a period of more than seventy years to cover his and Aristo's school-directorship, and if we add the forty-four years of Lyco's directorship it makes in all for

cia.[1] seems to have been more important. All that we

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the three men nearly 120 years. Zumpt ('Bestand d. Philos. Schulen in Athen.' *Abh. d. Berl. Akad. Hist.-phil. Kl.* 1842, p. 90 sqq.) is inclined to interpose other names between Aristo and Critolaus, and he cites the *Anonymus of Menage*, who at p. 13, 8, West., says: *διάδοχοι δ' αὐτοῦ* [Arist.] *τῆς σχολῆς κατὰ τάξιν ἐγένοντο οἵδε· Θεόφραστος, Στράτων, Πραξιτέλης, Λύκων, Ἀρίστων, Λυκίσκος, Πραξιφάνης, Ἱερώνυμος, Πρύτανις, Φορμίων, Κριτόλαος.* Unfortunately, this evidence is not satisfactory. For we cannot accept as a trustworthy list of the school-chiefs correctly set out *κατὰ τάξιν*, a statement which places between Strato and Lyco,—who undoubtedly followed directly one upon the other—an unknown individual, Praxiteles, not even mentioned in Strato's will (whom we cannot make a contemporary and colleague of Strato, as Zumpt would have it, any more than his *διάδοχος*), and describes as the *second* in order after Aristo, Praxiphanes, who was a scholar of Theophrastus (*supra*, vol. ii. p. 449), and as the *fifth* after him at Athens Phormio, who, as we learn from Cic. *De Orat.* ii. 18, 75–6, was in 194 B.C. an old man, and in Ephesus, evidently not merely on a journey; and inserts the still earlier Prytanis (*supra*, vol. ii. p. 477, n. 1) as Aristo's *fourth* successor: and supplies us in all with as many as *seven* 'Diadochoi' between the years 226 and 156 B.C. —On the other side we must remember that Cicero's words do not necessarily imply any gap between Aristo and Critolaus, but that it rather seems most likely that he did not know of any intervening directors: Hieronymus and the 'multi' whom he passes over are those whom he could not insert in the list of *διάδοχοι* since they were not school-directors. Also the statement that Andronicus (or, according to some, his pupil Boëthus) was the twelfth director in succession from Aristotle, is decidedly against Zumpt's theory. And why, after all, could not the presidencies of Aristo and Critolaus have lasted seventy or eighty years, just as well as that of Lyco lasted forty-four, and that of Theophrastus thirty-six years? The latter two, by the way, were no longer young when they were appointed. And we know from Lucian, *Macrob.* 20 that Critolaus (not as Zumpt, p. 90, says, Aristo) lived in fact to over eighty-two years of age. The Stoics Chrysippus and Diogenes held the presidency for at least eighty years, and the first five Stoic Diadochoi presided in all for a period of 140 years. Similarly, from 1640 to 1740, and again from 1740 to 1840, only three princes, and from 1640 to 1786 (*i.e.* in 146 years) only four princes occupied the throne of Prussia.

[1] The native town of Critolaus is determined by Plut. *ibid.* and other evidence. Otherwise the only certain piece of information we have relating to his life is that he took part, in conjunction with Diogenes and Critolaus, in the celebrated embassy which (according to Cic. *Acad.* ii. 45,

know of his views[1] shows him to have been in the main a true adherent of the Peripatetic teaching,[2] who, however, differed from Aristotle on several points. Thus he conceived of the soul, including the reason, as consisting of ether,[3] and in his Ethics he went beyond Aristotle in asserting that pleasure was an evil.[4] In other respects his views upon the nature of the *summum bonum* are thoroughly Aristotelian: he describes it generally as the perfection of a natural life, and further claims for it more particularly that it should embrace the three kinds of Goods,[5] among which, however, he

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137, during the consulship of P. Scipio and M. Marcellus, *i.e.* 598–9 A. U. C., or 156–5 B.C.; see CLINTON, *Fasti Hellen.*) was sent to Rome by the Athenians to deprecate the fine of 500 talents which had been imposed on the Athenians for the sack of Oropus. For further information on this subject see PAUSAN. vii. 11; CIC. *ibid.*, *De Orat.* ii. 37, 155, *Tusc.* iv. 3, 5, *Ad Att.* xii. 23; GELL. *N. A.* vi. 14, 8, xvii. 21, 48; PLIN. *H. N.* vii. 30, 112; PLUT. *Cato Maj.* 22; ÆL. *V. H.* iii. 17 (see also *infra* as to the historical bearings of the story). That Critolaus, as well as the others, lectured in Rome is expressly stated (see following note). It is also apparent from what has been stated in the foregoing note, and from what we know of the age of his successors, that Critolaus made this journey late in life. Except by the fact that he lived to be over eighty-two years of age (*v. ibid.*), it is not possible to indicate the date of his death.

[1] Cf. also CIC. *Fin.* v. 5, 14: 'Critolaus imitari antiquos voluit, et quidem est gravitate proximus, et redundat oratio, attamen is quidem in patriis institutis manet.' In reference to his lectures in Rome, GELL. vi. 14, 10 (following Rutilius and Polybius) says: 'Violenta et rapida Carneades dicebat, scita et teretia Critolaus, modesta Diogenes et sobria.'

[2] As CICERO indicates; see preceding note.

[3] STOB. *Ecl.* i. 58: Κριτόλαος καὶ Διόδωρος ὁ Τύριος νοῦν ἀπ' αἰθέρος ἀπαθοῦς. TERTULL. *De An.* 5: 'Nec illos dico solos, qui eam [animam] de manifestis corporalibus effingunt . . . ut Critolaus et Peripatetici ejus ex quinta nescio qua substantia [the πέμπτη οὐσία, the ether].'

[4] GELL. *N. A.* ix. 5, 6; 'Critolaus Peripateticus et malum esse voluptatem ait et multa alia mala parere ex sese, injurias, desidias, obliviones, ignavias.'

[5] CLEMENS, *Strom.* ii. 316, D: Κριτόλαος δὲ, ὁ καὶ αὐτὸς Περιπατητικὸς, τελειότητα ἔλεγεν [sc. τὸ

gave so unconditioned a preference to those of the soul that the others shrink into complete insignificance beside them.[1] Similarly in Physics he came forward as the defender of an important Aristotelian doctrine in maintaining the eternity of the world and of the human race against the Stoics.[2] He rests his arguments chiefly upon the immutability of the order of nature, which excludes the supposition that man has ever come into existence in any other way than as he now does; he adduces as indirect proof of the same the multiform incongruities involved in the idea that primeval man sprang from the earth; and concludes that man, and therefore also the world, must be eternal, nature having, as Plato and Aristotle had already declared,[3] conferred upon the whole race by means of propagation the immortality which she was unable to bestow upon individuals. He further remarks that a self-caused existence like the world must be eternal; if the world had a beginning, it would exhibit growth and evolution, not only in respect of its material frame, but also of the indwelling reason that governs it; this, however, is impossible in a being, like it, already perfect. While sickness, age, or want destroys living creatures, they

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τέλος] κατὰ φύσιν εὐροοῦντος βίου. τὴν ἐκ τῶν τριῶν γενῶν [the three kinds of Goods] *συμπληρουμένην προγονικὴν* [? *ἀνθρωπικὴν*] *τελειότητα μηνύων.* STOB. *Ecl.* ii. 58: *ὑπὸ δὲ τῶν νεωτέρων Περιπατητικῶν, τῶν ἀπὸ Κριτολάου,* [sc. *τέλος λέγεται*] *τὸ ἐκ πάντων τῶν ἀγαθῶν συμπεπληρωμένον. τοῦτο δὲ ἦν τὸ ἐκ τῶν τριῶν γενῶν.*

[1] CIC. *Tusc.* v. 17, 51: 'Quo loco quæro, quam vim habeat libra illa Critolai: qui cum in alteram lancem animi bona imponat, in alteram corporis et externa, tantum propendere illam bonorum animi lancem putet, ut terram et maria deprimat.'

[2] PHILO, *Ætern. Mundi*, p. 943 B—947 B, Hösch., c. 11–15, Bern.

[3] *Supra*, vol ii. p. 35, n. 2 cf. ZELL. *Ph. d. Gr.* i. 512, 3.

cannot affect the world as a whole; if the order or destiny of the world is acknowledged to be eternal, this must also be true of the world itself, which indeed is nothing else than the manifestation of this order. While the leading thoughts of this argument are not new, yet we must recognise in them an able defence of the Peripatetic doctrine. What we are further told of Critolaus[1] is of little importance.

Contemporaneous with Aristo and Critolaus was Phormio, the Peripatetic, whom Hannibal met at Ephesus (*circ.* 195 B.C.),[2] but of whom beyond the unseasonable lecture which he delivered to the Carthaginian hero upon generalship, nothing further is known.[3] To the same period belong apparently Sotion's[4] much-read work on the schools of philosophy[5] and the histories[1] of Hermippus and Satyrus. Heraclides

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[1] According to STOB. *Ecl.* i. 252, Critolaus held time to be a *νόημα ἢ μέτρον*, and not a *ὑπόστασις*. See also SEXT. *Math.* ii. 12, 20. According to QUINTIL. ii. 17, 15, he made sharp attacks on Rhetoric (of which Sext. tells us something), defining it, according to QUINT. ii. 15, 23, as *usus dicendi* (and QUINT. adds, *nam hoc τριβὴ significat*), which means (as PLATO had said in the *Gorg.* 463 B) that it was not an art but a mere readiness of speech acquired by practice. Further information as to what he said in connection with this criticism of oratory may be found in GELL. xi. 9.

[2] We have this incident from CIC. *De Orat.* ii. 18. As Hannibal was then with Antiochus in Ephesus, it must have been about the time stated in the text; and as he called the philosopher a *delirus senex*, Phormio must have then been advanced in years.

[3] For, as already remarked, we can make nothing of the statement of the ANON. MEN. cited at p. 480, n. *supra*.

[4] That Sotion was a Peripatetic is not expressly stated, but is evident from the whole character of his writings. Cf. SOTION, *De Fluv.* 44 (WESTERMANN, Παραδοξόγραφοι, p. 191).

[5] Cf. WESTERMANN, *Παραδοξόγραφοι*, p. xlix; and see particularly PANZERBIETER, 'Sotion,' in *Jahn's Jahrbb. Supplement*, v. (1837) p. 211 sqq. where it is shown from the data given by DIOGENES that the *Διαδοχὴ τῶν φιλοσόφων* must have been written between 200 and 150 B.C.—probably between 200 and 170 B.C.: inasmuch as, on the one hand, Chrysippus, who

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died about 206, was mentioned in the book (Diog. vii. 183), and, on the other hand, Heraclides Lembus (*de quo infra*) made an extract from it. Panzerbieter also makes it probable that the Διαδοχὴ consisted of 13 books, whose contents he endeavours to indicate. To this work belong also the references in Athen. iv. 62, e, viii. 343, c, xi. 505, c; Sext. *Math.* vii. 15.—Athen. viii. 336, d, tells us of another work of Sotion's, περὶ τῶν Τίμωνος σίλλων. It is very questionable whether it is chronologically possible that he could have written the 12 books Διοκλείων ἐλέγχων directed against Diocles of Magnesia (*v.* Dion. x. 4). At any rate the Κέρας Ἀμαλθείας, (Gell. *N. A.* i. 8, 1, cf. with Plin. *H. N.* præf. 24), the fragment on rivers and springs (in Westermann's Παραδοξόγραφοι, p. 183 sqq., cf. with Phot. *Bibl. Cod.* 189), which was probably part of the last-named work, the writing π. ὀργῆς (Stob. *Floril.* 14, 10, 20, 53, 108, 59, 113, 15) and those from which are derived the Fragments *apud* Stob. *Floril.* 84, 6–8, 17, 18, belong to one or perhaps to two younger men of the same name. We should say to one, if the Peripatetic Sotion mentioned by Gell. as author of the Κέρας Ἀμ. is identical with the Sotion who was Seneca's (*Epist.* 49, 2, 108, 17–20) teacher in the school of Sextus (Zell. *Ph. d. Gr.* iii. a, 600, 3, 605, 3); Müller, *Fragm. Hist. Gr.* iii. 168 takes it for granted that this is the case, but there seems to be some probability that they were different persons. In this case we must also attribute to that Peripatetic (Zell., *ibid.* iii. a, 694, 2nd ed.) the citations in Alex. Aphr. *Top.* 123 (which appear to be from a commentary on Aristotle), and in Cramer's *Anecd. Paris.* i. 391, 3; and the same man is perhaps meant in Plut. *Frat. Am.* c. 16, p. 487, and *Alex.* c. 61. On the other hand, the moral maxims cited by Stobæus belong to Seneca's teacher. It is impossible to say who was the Sotion frequently cited in the *Geoponica*, but he was in any case not the author of the Διαδοχή. M. Hertz 'Ramenta Gelliana' (*Bresl. Universitatschrift*, 1868) p. 15–6 attributes the Κέρας Ἀμαλθ. to the elder Sotion, but this does not follow from what is said by Gell. i. 8, 1; cf. Athen. xiii. 588 c; Diog. ii. 74.

[1] See Lozynski, *Hermippi Fragm.* Bonn, 1832; Preller, in *Jahn's Jahrb.* 1836, xvii. 159 sqq.; Müller, *Fragm. Hist. Gr.* iii. 35 sqq.; Nietzsche, *Rhein. Mus.* xxiv. 188–9, z. Hermippus is described by Hieron. *De Script. Eccl.* c. 1 (whose authority is not of much value) as a Peripatetic, and by Athen. ii. 58–9, v. 213–4, xv. 696–7 as ὁ Καλλιμάχειος, *i.e.* 'the pupil of Callimachus'; he is, therefore, probably the same Hermippus as is said to be a native of Smyrna in Athen. vii. 327 c. As we hear that in his chief work he mentioned the death of Chrysippus (Diog. vii. 184) whereas he is not referred to as an authority for later events, we may infer that he must have written

Lembus,[1] Agatharchides and Antisthenes of Rhodes

about 200 B.C. or soon after. The citation in the *Etymol. M.* 118, 11 would carry the date a little further—to about 203 B.C.—if the work there referred to was by him; see MÜLLER's note to *Fr.* 72.—Of his books, we hear of a great work of biography, the Βιοί, different parts of which seem to have been known by various separate names.—A second work π. τῶν ἐν παιδείᾳ διαλαμψάντων (*Etym. M.* ibid.), of which the π. τῶν διαπρεψάντων ἐν παιδείᾳ δούλων cited by SUIDAS *s. v.* Ἴστρος was no doubt a part, is with a great balance of probability ascribed by PRELLER, MÜLLER and others to the later Hermippus of Berytus. As to other writings *not* belonging to our Hermippus, see PRELLER, p. 174 sqq. For the list of the works of Aristotle and Theophrastus probably given in the Βίοι, see vol. i. p. 51.—In like manner, SATYRUS is described as a Peripatetic in ATHEN. vi. 248, d. xii. 534, b, 541, c. xiii. 556, a. His chief work was a collection of biographies, cited as the Βίοι (cf. ATHEN. vi. 248, d, f, 250 f, xii. 541, c, xiii. 557, c, 584, a; DIOG. ii. 12, viii. 40, 53; HIERON. *Adv. Jovin.* ii. 14, *De Script. Eccl.* c. 1), and called more fully (as is inferred by BERNAYS, *Theophr. üb. Frömm.* 161 from HIER. *Adv. Jov.*) Βίοι ἐνδόξων ἀνδρῶν. Further ATHEN. iv. 168 E, cites from a writer who is evidently our Satyrus, a fragment from a work π. χαρακτήρων. Another book in which a list of the Demes of Alexandria was given (THEOPHIL. *Ad Autol.* ii. p. 94), and a collection of proverbs (DIONYS. HAL. *Antiquitt.* i. 68) are probably, but not certainly, the work of a later scholar of whom (if he existed) we do not know whether he was or was not a Peripatetic (for in ATHEN. xiii. 556, a, only *our* Satyrus can be meant, and he is in fact always designated in the same manner). We can say with more certainty that the poem on precious stones, which PLIN. *H. N.* xxxvii. 2, 31, 6, 91, 7, 94, cites as by a Satyrus, was not the work of our Peripatetic. Cf. MÜLLER, *ibid.* 159, and the Fragments there, which in so far as they are genuine, contain only historical matter, excepting those from the 'Characters.'

[1] See MÜLLER, *Hist. Gr.* iii. 167 sqq. HERACLIDES, surnamed Lembus (cf. MÜLLER, *ibid.*), came, according to DIOG. v. 94, from Calatis in Pontus or from Alexandria; according to SUIDAS, *s.v.* Ἡρακλ. from Oxyrynchus in Egypt. According to SUID. he lived under Ptolemy Philometor (181–147 B.C.) in a distinguished position. SUID. calls him φιλόσοφος, and adds that he was the author of philosophical and other works. As his helper Agatharchides (see following note) is counted among the Peripatetics, and his own literary activity lay in this direction, we may include him also as one of the school. The Λεμβευτικὸς λόγος, which is said to have been the origin of his surname (DIOG. *ibid.*), was probably a philosophical work; but the most important of his works were, in any way, those which were historical. We know of an historical work in at least

are rather later.[1] No single utterance on philosophy, however, has been preserved to us from any of these.

More important for us is Diodorus of Tyre,[2] the successor of Critolaus. In his view of the soul he agreed with his master,[3] but differed from him and from

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thirty-seven books, an extract from the biography of Satyrus (Diog. viii. 40, 44, 53, 58), and a Διαδοχὴ in six books, which was an epitome of Sotion's work (Diog. v. 94, 79, viii. 7, x. 1). See the Fragm. of these, *apud* Müller, *ibid.*

[1] Agatharchides of Cnidos, ὁ ἐκ τῶν περιπάτων (Strabo, xiv. 2, 15, p. 656), was secretary to the above-named Heraclides Lembus (Phot. *Cod.* 213 *init.*), and was afterwards (as we learn from his own words *apud* Phot. *Cod.* 250, p. 445, a, 33, 460, b, 6) the tutor of a prince (Müller, *ibid.* 191 supposes, with Wesseling, that it was Ptolemy Physcon II., who reigned from 117–107 B.C.). Agatharchides wrote several historical and ethnographical works, of which one on the Red Sea has been preserved in great part by Phot. *Cod.* 250, pp. 441–460; as to the rest see Müller, p. 190 sqq.—So Antisthenes is spoken of by Phlegon, *Mirab.* 3, as a Peripatetic and a distinguished author, of whom he tells us a wonderful story about an alleged occurrence of the year 191 B.C. He is probably the same as the Peripatetic whose Διαδοχαὶ Diogenes often cites, and is, perhaps, also to be identified with the historian from Rhodes, who, according to Polybius, xvi. 14, was still alive during the first thirty years or so of the second century (Müller, *Hist. Gr.* iii. 182, believes the two to be different persons). The citations in Diogenes do not carry us beyond the death of Cleanthes (Müller, *ibid.*). That the pseudo-Aristotelian Μαγικὸς probably belonged to this Antisthenes of Rhodes has been already remarked, *supra*, vol. i. p. 81, n. 1.

[2] Stob. *Ecl.* i. 58, calls this Diodorus a Tyrian, and in Cic. *De Orat.* i. 11, 45, *Fin.* v. 5, 14, and Clem. *Strom.* 1, 301 B, he is described as the disciple and successor of Critolaus. Otherwise nothing is known about him, and it is impossible to define the date of his death or of his accession to the headship of the school; if, however, we can trust what Cic. says in the *De Orat.* ibid., he must have been still alive in 110 B.C. (see Zumpt, 'Ueber d. Bestand d. philos. Schulen in Athen.,' *Abh. d. Berl. Akad. Hist.-phil. Kl.* 1842, p. 93); but this, in view of the facts set out in n. 3 on p. 487 *infra*, is questionable.

[3] So Stob. *ibid.*; see *supra*, vol. ii. p. 481, n. 3. Still, he did not propose to overlook the difference between the rational and the irrational in the soul; for, according to Plut. Fragm. 1, *Utr. An. an Corp.* c. 6, 2 (if here Διόδωρος may be read for Διόδοντος, or if we may take the 'Διόδοτος' adopted by Dübner as being another form of the same

Aristotle in his ethics, uniting with their views upon the *summum bonum* those of Hieronymus, and to a certain extent combining the Stoic and Epicurean ethical principles with one another by maintaining that happiness consists in a virtuous and painless life;[1] as, however, virtue was declared by him to be the most essential and indispensable element in it, this deviation is in reality less important than at first appears.[2] Erymneus,[3] the successor of Diodorus, we know only

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name), he allowed that the *λογικὸν* of the *ψυχὴ* had its special *πάθη*, and that the *συμφυὲς* [sc. *τῷ σώματι*] and *ἄλογον* had special *πάθη* also; which can be reconciled with the '*ἀπαθὲς*' of Stob. by supposing that he held that the modifications of the rational portion of the soul, including the activities of thought, were improperly described '*πάθος*.'

[1] CIC. *Fin.* v. 5, 14: 'Diodorus, ejus [Critol.] auditor, adjungit ad honestatem vacuitatem doloris. Hic quoque suus est; de summoque bono dissentiens dici vere Peripateticus non potest.' So also 25, 73, ii. 6, 19, and *Acad.* ii. 42, 131; cf. *Fin.* ii. 11, 34: 'Callipho ad virtutem nihil adjunxit, nisi voluptatem: Diodorus, nisi vacuitatem doloris.' *Tusc.* v. 30, 85: 'Indolentiam autem honestati Peripateticus Diodorus adjunxit.' *Ibid.* 87: 'Eadem [like the Stoics] Calliphontis erit Diodorique sententia; quorum uterque honestatem sic complectitur, ut omnia, quæ sine ea sint, longe et retro ponenda censeat.' CLEMENS, *Strom.* ii. 415 C: *καὶ Διόδωρος ὁμοίως, ἀπὸ τῆς αὐτῆς αἱρέσεως γενόμενος* [as Hieronymus], *τέλος ἀποφαίνεται τὸ ἀοχλήτως καὶ καλῶς ζῆν.*

[2] We find also a definition of Rhetoric ascribed to a Diodorus (NIKOL. *Progymn. Rhet. Gr. apud* SPENGEL, iii. 451, 7), which implies that he wrote about Rhetoric. There is the less reason to doubt that this Diodorus is the Peripatetic, since we have seen that the same question arose in the cases of Aristo and Critolaus; *supra*, vol. ii. p. 483, n. 1.

[3] The long and detailed fragment of POSIDONIUS, preserved by ATHEN. v. 211, d sqq., gives the history of one Athenion, described as a Peripatetic, who had studied first in Messene and in Larissa (the addition that he became head of the school in Athens is plainly a blunder of Athenæus, which is refuted by his own quotation from Posidonius), and had then contrived by flattery to ingratiate himself with Mithridates, and so to make himself for a time the master of Athens (meaning evidently the same man who is called 'Aristion' by PLUT. *Sulla*, 12, 13, 23, and elsewhere, and who is described by APPIAN, *Mithr.* 28, as an Epi-

by name. With regard to Callipho and Dinomachus, two philosophers who in ethics occupy an intermediate position between the Epicureans and the Peripatetics, we are wholly ignorant to which school they belonged.[1]

Among our sources of information with regard to the state of the Peripatetic philosophy during the third and second century B.C. are probably to be reckoned most of the writings which our previous investigation excluded as spurious from the collected works of Aristotle. While the contribution they supply is an insignificant one, yet it is not so wholly worthless but that it will repay us to examine its contents. To this class belongs, in the field of logic, the second part of the *Categories*, which has probably come down to us in its present form from that period.[2] Important as these so-called 'Postprædicamenta' of the later logic may have been, yet the treatment which a few of the principles of Aristotelian logic here receive cannot but appear

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curean); and Posidonius says explicitly that this man was a natural son of Athenion, a pupil of Erymneus. As Athens revolted from the rule of the Romans in 88 B.C., it follows from the account given in this Fragment that Erymneus cannot have begun his headship of the school later than 120–110 B.C.

[1] What is known of these two philosophers through CIC. *Fin.* ii. 6, 19, 11, 34 (*supra*, vol. ii. p. 487, n. 1), v. 8, 21, 25, 73, *Acad.* ii. 42, 131, *Tusc.* v. 30, 85, 87, *Offic.* iii. 34, 119, and CLEM. *Strom.* ii. 415 C, limits itself to this: that they thought to find the highest happiness in the union of pleasure and virtue, or, as CLEMENT says, they sought it in pleasure, but they further explained that virtue was equally valuable; or rather, according to *Tusc.* v. 30, 87 indispensable. According to CIC. *Fin.* v. 25, 73, Callipho was older than Diodorus, and according to *Acad.* ii. 45, 139, older, or at any rate not younger, than Carneades. It is not stated to what school he and Dinomachus belonged; but HARLESS (*Fabric. Biblioth.* iii. 491) makes a gross mistake when he suggests that this Dinomachus is the Stoic mentioned by LUCIAN, *Philopseud.* 6 sqq. for the latter was evidently a contemporary of Lucian.

[2] *Supra*, vol. i. p. 64, n. 1.

insignificant to us, and a like judgment must be passed upon the last chapter of the work *περὶ Ἑρμηνείας*.[1] The spurious treatise on the Elements of Metaphysics [2] contains, with the exception of a passage in the second book already touched upon,[3] scarcely any modification of the Aristotelian doctrine. The work upon Melissus, Zeno and Gorgias, of the date of whose composition we know absolutely nothing, proves its spuriousness not so much by any positive deviations from the Aristotelian teaching as by the defects of its historical statements and critical expressions, as well as by the general obscurity of its aim.[4] Of works upon Physics the book upon the World will hereafter engage our attention as an example of the eclectic method of combining Peripatetic and Stoic doctrines.[5] The treatise upon Indivisible Lines which, if it is not the work of Theophrastus himself,[6] appears to date from his time, ably combats a view which Aristotle had rejected. To the school of Theophrastus and Strato perhaps belong the treatises upon Colours, Sounds, the Vital Spirit, and the

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[1] The *Postprædicamenta* treat of (1) c. 10–1, the four kinds of opposition which have been described already, *supra*, vol. i. p. 223 sqq.; (2) c. 12, the different significations of the *πρότερον*, with a slight, but merely, formal dissent from *Metaph.* v. 11; (3) c. 13, the significations of the *ἅμα*, this section being only based in part upon the earlier texts and in part original (cf. WAITZ, *ad loc.*), though not contrary to the views of Aristotle; (4) c. 14, concerning the six kinds of motion, in agreement with the views stated *supra*, vol. i. p. 423, n. 1; (5) c. 15, on the *ἔχειν*, the meanings of which are set out rather differently from the Aristotelian account in *Metaph.* v. 23.

[2] Cf. with *supra*, vol. i. p. 66, n. 1.

[3] *Supra*, vol. ii. p. 429, n. 1.

[4] Cf. herewith ZELL. *Ph. d. Gr.* i. 464 sqq.

[5] ZELL. *Ph. d. Gr.* iii. a, 558 sqq. 2nd ed.

[6] Cf. *supra*, vol. i. p. 86, n. 1, and ZELL. *Ph. d. Gr.* i. 868, 4.

Motions of Animals—works which are not without independence, and exhibit evidence of respectable work in the field of science. The first of these, differing widely from Aristotle, traces the origin of the colours to the elements, of which fire is said to be yellow while the rest are naturally white; black is caused by the transmutation of one element into another, the burning up of air and water and the drying up of water.[1] All colours are said to be mixtures of these three elements.[2] Light is described as the proper colour of fire;[3] that it is conceived of as corporeal[4] is obvious, not only from its being classed, as we have just seen, with the colours, but also from the way in which the lustre and the dulness of thick transparent bodies are alike explained.[5] Upon the further contents of this treatise, as it goes on to discuss in detail the preparation of colours and the natural hues of plants and animals, we cannot here stop to enlarge. With regard, similarly, to the short work upon Sounds, which in tone and method is related to that on Colours, and is to be attributed perhaps to the same author, it will be sufficient to refer to our previous quotation from it.[1] We must assume a different author for the work upon the Vital Spirit,[2] which discusses in a somewhat sceptical tone the origin, sustenance, diffusion, and operation of the *anima vitæ* accepted by Aristotle as the primary substratum of the soul.[3] This book, on account of its fragmentary character and the numerous corruptions in the text, is sometimes almost incomprehensible to us. Its general presuppositions of design in nature,[4] and of a soul and vital spirit united with it[5] in man, are Aristotelian. Peculiar to itself, on the other hand, is the assumption that the vital spirit, as Erasistratus had held,[6] spreads from the heart by means of the arteries through the whole body, and that it is this (and not, as Aristotle held, the flesh) which is the primary organ of sensation.[7] Respiration, the pulse, the consumption and distribution of the food,[8] are effects of the operation of the vital spirit, which nourishes itself from the blood, the breath serving only, as Aristotle had taught, to cool it.[9] The relation of the operative *pneuma*,[1] which was said to reside in the sinews and nerves,[2] to this vital principal is not made altogether clear.[3]

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[1] *De Color.* c. 1; PRANTL, *Arist. v. d. Farben*, 108, finds in this treatise a confusion of two views: (*a*) that darkness is either the absence or partial absence of light (the latter in the case of shadows or of rays penetrating through the density of some transparent body); and (*b*) that blackness is to be explained in the manner stated in the text. The inconsistency, however, is only apparent: for the *σκότος*, which produces the appearance of the blackness (791, a, 12), is to be distinguished from the *μέλαν χρῶμα*, which is the quality of bodies tending to check light and produce *σκότος* (791, b, 17).

[2] C. 1, 791, a, 11, c. 2, 792, a, 10, c. 3, 793, b, 33. For more detailed theories on the origin of the different colours, see c. 2, 3.

[3] C. 1, 791, b, 6 sqq.; cf. with 791, a, 3.

[4] Strato held the same views on this, but not Aristotle or Theophrastus; *supra*, vol. i. p. 518, n. 3, vol. ii. p. 379, n. 1.

[5] Lustre (*στίλβον*) is (c. 3, 793, a, 12) a *συνέχεια φωτὸς καὶ πυκνότης*: transparent matter looks dark, when it is too thick to allow the rays of light to pierce it, and bright when it is thin, like air, which when not present in too dense a form is overcome by the rays: *χωριζόμενος ὑπ' αὐτῶν πυκνοτέρων οὐσῶν καὶ διαφαινομένων δι' αὐτοῦ* (c. 3, 794, a, 2 sqq.).

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[1] *Supra*, vol. ii. p. 465, n. 8.

[2] As to which cf. also *supra*, vol. i. p. 89, n. 3, *ad fin*.

[3] *Supra*, vol. ii. p. 6, n. 2.

[4] Cf. c. 7, 484, b, 19, 27 sqq. c. 9, 485, b, 2 sqq.

[5] C. 9, 485, b, 11; cf. with c. 1, 480, a, 17, c. 4, 482, b, 22, c. 5, 483, a, 27 sqq. The subject of the treatise did not give any occasion for the statement of any view as to the Νοῦς.

[6] As to this physician, who was probably a pupil of Theophrastus (*supra*, vol. ii. p. 451, n. 2), and as to his theory of the dissemination of the *pneuma* through the arteries, see SPRENGEL, *Gesch. d. Arzneik.* 4 ed. i. 525 sqq.; on the relations of the π. πνεύματος to his teaching see ROSE, *De Arist. Libr. Ord.* 167–8.

[7] C. 5, 483, a, 23 sqq. b, 10–26, c. 2, 481, b, 12, 18.

[8] C. 4–5.

[9] Cf. *supra*, vol. ii. p. 6, n. 2, p. 43.

Of a later date than this treatise,[4] and much more clearly written, is one upon the Motion of Animals, which professes to be the work of Aristotle,[5] inadmissible as this claim is.[6] The contents of this work are almost entirely drawn from Aristotle, but are in parts so combined as wholly to contradict the spirit of his teaching. It starts from the principle that all motion must ultimately be referred to a self-moving and unmoved entity,[7] but proceeds by a singular application of it to draw the conclusion that every mechanical motion presupposes two unmoved entities: in the thing itself a motionless point from which the motion proceeds, and outside of it a motionless body upon which the thing rests;[1] from which it again concludes that the unmoved principle which propels the world cannot be within the latter, but must be outside of it.[2] It further shows in a discussion with which we are already familiar, how the presentation of the desirable object to the mind creates the desire, and this in turn the physical movements,[3] which all proceed from the centre of the body as the seat of sensation—or, to be strict, from the soul, which there has its abode.[4] The soul thus operates upon the body by means of the expansion and contraction, the rise and fall of the vital spirit (*πνεῦμα σύμφυτον*). In order that it should so operate, however, it is not necessary that it should leave its seat in the heart and act directly upon all parts of the body, since, in virtue of the principle of order that governs the whole, its decrees find automatic fulfilment.[5]

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[1] C. 1–2, c. 5 *ad fin.* where at p. 484, a, 8 we must read: *σύμφυτον πῶς ἡ διαμονή*, &c.

[2] The sinews and nerves were not distinguished by Herophilus, the first discoverer of nerves, or by his contemporary, Erasistratus, or indeed for a long time afterwards, but they were designated as a whole by the common term *νεῦρα*, which had originally signified the sinews only; SPRENGEL, *ibid.* 511–12, 524–25.

[3] C. 8 *init.* (where at p. 485, a, 4 we should probably read: *πάντων δ' ἐστὶ λόγον βέλτιον ὡς καὶ νῦν ζητεῖν*): *οὐκ ἂν δόξειε κινήσεως ἕνεκα τὰ ὀστᾶ, ἀλλὰ μᾶλλον τὰ νεῦρα ἢ τὸ ἀνάλογον, ἐν ᾧ πρώτῳ τὸ πνεῦμα τὸ κινητικόν.*

[4] As we see from the fact that the *π. πνεύματος* is quoted in the *π. ζῴων κινήσεως* c. 10, 703, a, 10; cf. *supra*, vol. i. p. 92. The possibility that both works have the same author is not excluded: but the style and manner of expression differ too much.

[5] The first words of the *π. ζῴων κινήσεως* present it as the completion of an earlier inquiry, which is evidently meant to indicate the *π. ζῴων πορείας*. Again in c. 1, 698, a, 7 we have a reference to *Phys.* viii. in c. 6, at p. 700, b, 4, lines 21 and 9 (cf. *supra*, vol. i. p. 80) to the *π. ψυχῆς* and the *π. τῆς πρώτης φιλοσοφίας*; in c. 11 *ad fin.* to the *π. ζῴων μορίων*, the *π. ψυχῆς*, the *π. αἰσθήσεως καὶ ὕπνου καὶ μνήμης*, and to the *π. ζῴων γενέσεως* as an immediately preceding treatise. These references are made just in the way in which Aristotle himself was accustomed to quote his works. Nevertheless the *π. ζῴων κινήσεως* is so free, both in style and matter, from any of the marks which would betray a very late date, that we should not be justified in referring it to a time subsequent to the work of Andronicus.

[6] *Supra*, vol. i. p. 93, n. 1.

[7] C. 1, 698, a, 7 sqq. (where

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we should read *τούτου δὲ τὸ ἀκίνητον*), and c. 6, 700, b, 7.

[1] C. 1, 698, a, 11, c. 2 *ad fin.*; and c. 4, 700, a, 6 sqq. We have also at 698, a, 11 the remarkable statement: *δεῖ δὲ τοῦτο μὴ μόνον τῷ λόγῳ καθόλου λαβεῖν, ἀλλὰ καὶ ἐπὶ τῶν καθέκαστα καὶ τῶν αἰσθητῶν, δι' ἅπερ καὶ τοὺς καθόλου ζητοῦμεν λόγους*—which is an exaggeration of the view which is indicated as that of Aristotle, *supra*, vol. i. p. 167.

[2] C. 3–4, where the myth of Atlas referred to in *De Cœlo*, ii. 1, 284, a, 18, is proved to be mechanically impossible. We might conclude from 699, a, 31 that the author did not share Aristotle's belief as to the stillness of the earth, but this is hardly his meaning. He is only carried away in the heat of controversy into using an argument which would make, in fact, against Aristotle himself.

[3] C. 6–8; *supra*, vol. ii. p. 110 sq.

[4] C. 9.

[5] C. 10. This recalls both the work quoted, the *π. πνεύματος*, and also the *π. κόσμου*, which, in the discussion it contains as to the action of God on the world (c. 6, 398, b, 12 sqq, 400, b, 11 sqq.), appears to have in view the passage referred to in the text, as also c. 7, 701, b, 1.

The pamphlet ends with some remarks upon involuntary movements.[1]

Among the superior pseudo-Aristotelian writings we must reckon also the *Mechanical Problems*,[2] which, however, contain too little of a philosophical character to detain us here.—Even the work on Physiognomy, however mistaken the attempt as a whole, furnishes us with an example of logical methods and careful, sometimes even keen, observation. Its leading thought is the complete interdependence of body and soul;[3] from which it concludes that there must be certain physical indications of moral and intellectual characteristics, the extent and subtilty of which may be measured both by the analogy of certain of the lower animals and by the impression produced by the figure, features and gait. On this latter subject many of its observations are not without value.—The tenth book of the *Natural History*[4] deviates from one of the fundamental principles of the Aristotelian physiology[5] by the assumption of a female seed, but in other respects gives evidence of careful observation, remarkable for that time. At the earliest it belongs to the school of Strato.[6]—The pseudo-

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[1] C. 11.

[2] *Supra*, vol. i. p. 86, n. 1.

[3] C. 1 *init.*: ὅτι αἱ διάνοιαι ἕπονται τοῖς σώμασι, καὶ οὐκ εἰσὶν αὐταὶ καθ' ἑαυτὰς ἀπαθεῖς οὖσαι τῶν τοῦ σώματος κινήσεων . . . καὶ τοὐναντίον δὴ τοῖς τῆς ψυχῆς παθήμασι τὸ σῶμα συμπάσχον φανερὸν γίνεται &c.; c. 4 *init.*: δοκεῖ δέ μοι ἡ ψυχὴ καὶ τὸ σῶμα συμπαθεῖν ἀλλήλοις &c. This συμπάθεια recalls the terminology of the Stoics.

[4] Probably identical with the ὑπὲρ τοῦ μὴ γεννᾷν, which has been mentioned *supra*, vol. i. p. 87, n. 1.

[5] C. 5, 636, b, 15, 26, 37, c. 6 *fin.* c. 2, 634, b, 29, 36, c. 3, 636, a, 11, c. 4 *fin.* &c., wherewith cf. vol. ii. p. 50 sq.

[6] The female seed has already been discussed in connection with Strato, *supra*, vol. ii. p. 466, n. 1. This book differs still further from Aristotle (as ROSE, *Arist. Libr. Ord.* 172, points out) in that it inculcates that the

Aristotelian *Tales of the Marvellous* cannot be adduced as examples of independent research, but only as a proof of the uncritical eagerness with which the later learning was wont to collect even the most improbable statements, if only they were surprising enough; and the same is in the main true of the form in which the *Problems* have come down to us. These works are useless to us in a history like the present, if for no other reason, because we are entirely ignorant through how many hands they have come, and when they received their present form.[1]

Among the ethical works in the Aristotelian collection there are three besides the *Eudemian Ethics* which are of later Peripatetic origin: the essay upon *Virtues and Vices*, the so-called *Magna Moralia*, and the *Economics*. The first of these will come before us hereafter among the evidences of the Eclecticism of the younger Peripatetic school.—The *Magna Moralia* is an abbreviated reproduction of the *Nicomachean* and the *Eudemian Ethics*, which (apart from the books which are common to both of these) for the most part follows the latter,[2] although in individual sections preferring the former. The essential points of the earlier works are as a rule intelligently grasped and placed in due prominence, sometimes even receiving

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seed is absorbed through the πνεῦμα, and not, as Aristotle believed, by the warmth of the uterus (c. 2, 634, b, 34, c. 3, 636, a, 4, c. 5, 637, a, 15 sqq.). That the book is post-Aristotelian is again proved by the passage on the μύλη, c. 7, 638, a, 10–18, which is copied, word for word, from the *Gen. An.* iv. 7, 775, a, 27 sqq.

[1] See *supra*, vol. i. p. 96 sqq.; and see also p. 85, n., as to the Aristotelian fragment on the Signs of the Weather; and as to the books on Plants, which do not here concern us, see p. 93 n. 2.

[2] Cf. SPENGEL, *Abhandl. d philos.-philol. Kl. d. Bayr. Akad* iii. 515–6; BRANDIS, ii. b, 1566.

further development and elucidation. The manner of presentation is in parts clumsy and not free from repetitions, nor is the proof always convincing,[1] while the ἀπορίαι, which the writer frequently delights to propose, receive an unsatisfactory solution, or none at all.[2] In the original parts of the work we find much that is more or less at variance with the spirit of the Aristotelian ethics.[3] The author avoids the religious view of ethics which he found in Eudemus.[1] Of the later combination of the Peripatetic teaching with Stoic and Academic elements his work contains hardly a trace;[2]

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[1] *E.g.* B. i. 1, 1183, b, 8 sqq.

[2] So ii. 3, 1199, a, 19—b, 36, ii. 15, 1212, b, 37 sqq. i. 35, 1127, b, 27 sqq. The difficulties so seriously discussed at ii. 6, 1201, a, 16 sqq. are curiously and characteristically petty.

[3] In this respect the following points may be noticed:—i. 2–3 gives us various divisions of the kinds of Good, of which only that into spiritual, bodily, and external goods (in c. 3) is Aristotelian, and the subdivision of the spiritual goods into φρόνησις, ἀρετὴ, and ἡδονὴ is taken from *Eud.* ii. 1, 1218, b, 34, where, however, these three are not given as a division, but are only intended as examples of spiritual goods. Peculiar to this author is the division of goods into the τίμια (God, the Soul, the Nous, &c.), the ἐπαινετὰ (the Virtues), the δυνάμεις (a curious expression for the δυνάμει ἀγαθὰ, *i.e.* the things, such as riches, beauty, &c., which may be used for good or evil), and fourthly, the σωστικὸν καὶ ποιητικὸν τοῦ ἀγαθοῦ; peculiar to him also are the divisions into things which are good unconditionally or good conditionally (*i.e.* virtues and external goods), into τέλη and οὐ τέλη (as health and the means to health), and into τέλεια and ἀτελῆ. The methods already introduced by the Stoics seem to have influenced the writer of the *M. Mor.* in this matter, for we know something of their fondness for multiplying distinctions between different senses of the ἀγαθὸν, *de quo v.* Stob. ii. 92–102, 124–5, 130, 136–7; Diog. vii. 94–98; Cic. *Fin.* iii. 16, 55; Sext. *Pyrrh.* iii. 181; Seneca, *Epist.* 66, 5, 36–7. As these Stoical classifications had their origin chiefly in the work of Chrysippus, we might found upon this circumstance an inference as to the date of the *M. Mor.* itself.—Again, though it is not true that the *M. Mor.* leaves out the dianoëtic virtues (for only the name is wanting, and at i. 5, 1185, b, 5, i. 35, the subject is really dealt with), yet, on the other hand, it is against the Aristotelian principles to say, as the author does, that only the virtues of the ἄλογον (*i.e.* the ethical virtues, which, therefore, are alone named ἀρεταὶ) are ἐπαινεταὶ, but that those of the λόγον ἔχον are not (i. 5, 1185, b, 5 sqq. c. 35, 1197, a, 16). The author, in this respect dissenting from Aristotle, under the head of the dianoëtic virtues combines τέχνη with ἐπιστήμη,

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which term in the *M. Mor.* is constantly used for τέχνη (i. 35, 1197, a, 18, cf. with the *Nic. Eth.* vi. 5, 1140, b, 21; and 1198, a, 32, ii. 7, 1205, a, 31, 1206, a, 25, cf. *Nic. Eth.* vii. 12–13, 1152, b, 18, 1153, a, 23; ii. 12, 1211, b, 25, cf. *Nic. Eth.* x. 7, 1167 b, 33; only in *M. Mor.* i. 35, 1197, a, 12 sqq. is τέχνη used in the same way as in *Nic. Eth.* vi. 4, 1140, a, 11; see SPENGEL, *ibid.* p. 447); while, on the other hand, the *M. Mor.* oddly adds to the four remaining dianoëtic virtues ὑπόληψις as a fifth (i. 35, 1196, b, 37). When the author defines justice in a wide sense as ἀρετὴ τελεία, and adds that in this sense a man can be just for himself alone (i. 94, 1193, b, 2–15), he overlooks the closer definition given by Aristotle, that it is the ἀρετὴ τελεία πρὸς ἕτερον (*supra*, vol. ii. p. 170, n. 2). As to the question whether a man can do himself an injustice, which Aristotle had dealt with in the *Nic. Eth.* v. 15 *ad fin.* metaphorically as referring to the injustice of one part of the soul towards another, the author of the *M. Mor.* takes it literally (i. 34, 1196, a, 25, ii. 11, 1211, a, 27). So the question if a man can be his own friend was similarly treated by **EUDEMUS**, vii. 6, 1240, a, 13 sqq. b, 28 sqq. and *M. Mor.* ii. 11, 1211, a, 30 sqq. The *M. Mor.* is very unaristotelian in the circumstance that (at ii. 3, 1199, b, 1) it includes Tyranny as one of the things which may be good in themselves, even if they are not always good for individual people; and when the author (in ii. 7, 1204, b, 25 sqq.) describes pleasure as a movement of the sensitive part of the soul, he follows Theophrastus rather than Aristotle; cf. *supra*, ii. pp. 147, 391, n. 2.

[1] In the discussion on εὐτυχία, (*M. Mor.* ii. 8; *Eud.* vii. 14) the author suggests that it consists in an ἐπιμέλεια θεῶν, in that he supposes God to apportion good and evil according to merit; and, with Eudemus (*supra*, vol. ii. p. 424 sq.), he traces it back partly to a μετάπτωσις τῶν πραγμάτων, but partly also and chiefly to the happy disposition of the person's nature (the φύσις ἄλογος), the operation of which he compares with that of an enthusiasm, admitting, however, as did his predecessors, that it is directed by a Divine Being. The author of the *M. Mor.* further agrees with Eudemus (*supra*, vol. ii. p. 425, n. 1) as to the union of all the virtues to form καλοκἀγαθία (ii. 9), and concludes with him that the real function of ethical virtues is that they guard the active reason from derangement by the passions; but he omits the consideration of the relation of reason to the Godhead and the doctrine that the knowledge of God is the final aim of life.

[2] The only passage in which we can find any positive reference to the doctrine of the Stoics is that just cited, *i.e.* i. 2; there is, perhaps, a negative reference in ii. 7, 1206, b, 17: ἁπλῶς δ'

and partly on this account, and partly on account of the poverty of its language as contrasted with the richness of such writers as Critolaus, it must be referred to the third or at latest to the second century; but in scientific independence it is decidedly inferior even to the *Eudemian Ethics*.—Of earlier date than the *Magna Moralia* is without doubt the first book of the *Œconomics*. The contents of this small but well-written treatise consist partly of a recapitulation and summary, partly of an expansion of the view Aristotle had taken in the *Politics* of the Household, the relation of Man and Wife, and Slavery;[1] the last of these he does not attempt to justify.[2] The most original part of it refers to the separation of Economics as a special science from Politics—a modification of Aristotle's views which we have already met with in Eudemus.[3] The book in general reminds us of Eudemus; its relation to the economical sections of the *Politics* very much resembles that of the *Eudemian* to the *Nicomachean Ethics*, and the whole style of treatment, and even the language—which is clear and elegant, but lacks the nerve of Aristotle's[4]—would afford further support to the conjecture that Eudemus was its author. Philodemus, however, attributes it to Theophrastus;[5] and although

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οὐχ, ὡς οἴονται οἱ ἄλλοι, τῆς ἀρετῆς ἀρχὴ καὶ ἡγεμών ἐστιν ὁ λόγος, ἀλλὰ μᾶλλον τὰ πάθη.

[1] *Supra*, vol. ii. p. 213 sqq.

[2] This circumstance amongst others goes to prove that this work is not an Aristotelian sketch antecedent to the *Politics*, but is based on the cognate section of the *Politics* itself and is an elaboration of it which we certainly cannot attribute to Aristotle.

[3] *Supra*, vol. i. p. 186, n. 4.

[4] It is difficult to find, as in the *Ethics of Eudemus*, any doctrine that can be called un-Aristotelian; but the expression τὴν τῶν ἰατρῶν δύναμιν, c. 5, 1244, b, 9, is surprising.

[5] *De Vit.* ix. (*Vol. Herc.* iii.) *Col.* 7, 38, 47, 27, 15, where chaps.

all we can conclude from this is that several MSS. bore his name,[1] yet there is no decisive consideration that can be urged against the correctness of this view.[2] The second book of the *Œconomics*, which has no connection with the first, is as unmistakably later in origin as it is inferior in value. Its contents consist chiefly of a collection of anecdotes in illustration of a point in Aristotle's doctrine,[3] introduced by a dry and somewhat singular enumeration of the different kinds of Economy.[4] This book, while without doubt proceeding from the Peripatetic school, is only one of the many proofs of the paltry pedantry which after a few generations became its predominating feature.

The *Rhetoric* dedicated to Alexander, which, as formerly remarked,[5] cannot be previous to Aristotle, is the work of a rhetorician whose date cannot be further determined. It need not here delay us, as it exhibits no philosophical originality.

Even with these pseudo-Aristotelian books, our knowledge of the written works which proceeded from the Peripatetic school of the third and second centuries, and of their contents, must be admitted to be in the highest degree defective as compared with their number

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1–5 of the *Economics* are submitted to a detailed and searching criticism. Cf. as to this and as to certain variations of the Philodemian from the common text which it indicates, the notes of the editor and his preface (vii.–viii.).

[1] *Supra*, vol. ii. p. 204, n. 2, vol. i. p. 86, n. 1 (π. ἀτόμων γραμμῶν) 104, and ZELL. *Ph. d. Gr.* i. 476, 1, where it is shown that this was the case with many of these works, genuine or spurious, attributed to Aristotle.

[2] The absence of the *Economics* from the list of works by Theophrastus given by Diogenes proves little.

[3] *Supra*, vol. ii. p. 222, n. 2.

[4] The βασιλικὴ, σατραπικὴ, πολιτικὴ, and ἰδιωτικὴ—followed by a catalogue of the various sources of income belonging to each of these.

[5] *Supra*, vol. i. p. 74, n. 3.

and copiousness. Nevertheless such imperfect knowledge as we have places us in a position to form a true estimate of the development of this school as a whole. We see it, under Theophrastus and Strato, taking an honourable place till towards the middle of the third century; we see it especially making important contributions in the field of natural science, and under the influence of this scientific interest modifying important Aristotelian doctrines in a direction which seemed to promise greater unity to the system, but which if consistently followed out must have involved the abandonment of many of its essential features. But the spirit of the time was unfavourable to these efforts, and the Peripatetic school could not long resist its influence. Soon after the time of Strato all independence of thought in science, and simultaneously also in logic and metaphysics, ceased, and the school began to confine itself to ethics and rhetoric, and that historical and philosophical erudition which with all its extent and variety compensates us neither with a healthy criticism of tradition nor a broad treatment of history for its poverty in philosophic thought. This was the signal for its relapse into a position of subordinate importance. It continued nevertheless to do good service in propagating the knowledge of earlier researches, and in forming by the moderation of its ethical doctrine, which differed from Aristotle's only in a few isolated particulars, a wholesome counterpoise to the one-sidedness of other schools. But the lead in the scientific movement had passed into other hands, and we have to seek in the younger schools the true exponents of the philosophy of the age.

APPENDIX

ON THE FORM OF THE 'POLITICS'

(Being vol. ii. p. 204, n. 1.)

THE form in which Aristotle's *Politics* has come down to us (as to which see also i. 100, n. 1) presents many peculiar features. After a short introduction, bk. i. discusses the Household as an element in the State—chiefly on the economic side. On the other hand, the Family and Education are reserved for a later place, on the ground that they have to adapt themselves to the general form of political life (c. 13, 1260, b, 8). Passing in bk. ii. to the doctrine of the State itself, Aristotle proposes, in the first place, to investigate the Best Form of State (i. 13 *fin.* ii. 1 *init.*), proceeding by way of introduction to criticise the most famous States, whether actually historical or merely imagined by philosophers. After examining the idea of the state and of the citizen (iii. 1–5), he goes on in bk. iii. (6–13) to distinguish the different Forms of Constitution and to discuss the various points of view from which their value may be estimated. In iii. 14 he turns to Monarchy as the first of the true forms, devoting four chapters to its discussion. Chapter 18 proposes to take up the discussion of the Best State, but breaks off with an incomplete sentence, which is not resumed till bk. vii. 1 *init.* Meanwhile the subject also has to stand over. Bk. iv. treats of the Constitutions which remain after Monarchy and Aristocracy have been disposed of, viz. Oligarchy, Democracy, Polity and Tyranny. It discusses which is the best suited for the majority of states and under what conditions each is natural. Finally (cc. 14–16) it investigates the various possible arrangements for the bodies entrusted with legislative, executive and judicial powers. Bk. v. is devoted to the question of change in the different forms of government, their decay and the means for their preservation. Bk. vi. introduces us (2–7) to the subordinate species of democracy and oligarchy, and (c. 8) to the discussion of the different offices of state. Bk. vii. begins (1–3) the treatment of the best state promised in iii. 18, with a discussion of happiness in the individual and in the community, and then proceeds to sketch the outlines of the best state itself (c. 4 bk. viii. *fin.*), devoting especial care to the subject of education and kindred questions (vii. 15, 1134, b, 5–viii. 7). The work ends informally with the discussion of Music.

Even earlier scholars recognised that neither the scope nor the arrangement of the work as it stands corresponds with Aristotle's original plan, and recent critics are still more pronounced on this head. After Nicol. Oresme (1489) and Segni (1559) had remarked that the subject of bks. vii. and viii. connects with bk. iii., Scaino da Salo (1577) was the first to propose actually to place them between bks. iii. and iv. Sixty years later (1637) Conring not only independently repeated this suggestion but went on to attack the integrity of our text, indicating in his edition of 1656 a number of *lacunæ* of greater or less extent which he suspected to exist. In more recent times the subject attracted the attention of Barthélemy St-Hilaire (*Politique d'Aristote*, i. pp. cxli–clxxii), who, while he denied that the work as we have it is either incomplete or mutilated, held, on the other hand, not only that bks. vii. and viii. should come after iii., but that bks. v. and vi. should likewise be transposed (the latter coming between iv. and v.). He himself observes this order in his translation, and he has been followed by Bekker in his smaller edition and by Congreve. Both of these suggestions are accepted by Spengel ('Ueb. d. Politik d. Arist.' *Abh. d. Münchn. Akad. philos.-philol. Kl.* v. 1–49), Nickes (*De Arist. Polit. Libr.* Bonn, 1851, p. 67 sqq. 112 sqq.), Brandis (*Gr.-röm. Phil.* ii. p. 1666 sqq. 1679 sq.), and others. Woltmann ('Ueb. d. Ordnung d. Bücher in d. Arist. Politik.' *Rhein. Mus.* 1842, 321 sqq.), on the other hand, while accepting the transposition of v. and vi., rejects the removal of vii. and

viii. from their present place. HILDENBRAND (*Gesch. u. Syst. d. Rechts- und Staatsphil.* i. 345–385; cf. FECHNER, *Gerechtigkeitsbegr. d. Arist.* p. 65, p. 87, 6), on the contrary, defends the traditional order of v. and vi., but inserts vii. and viii. between iii. and iv. The traditional arrangement of both these sections has been defended by GÖTTLING (Preface to his edition published 1824, p. xx sqq.), FORCHHAMMER (*Verhandl. d. Philologenvers. in Kapsel*, p. 81 sq., *Philologus*, xv. 1, 50 sq.; on the former with its curious suggestion that the *Politics* follows the order of the four causes, see SPENGEL, *loc. cit.* 48 sq., HILDENBRAND, *op. cit.* 390 sq.), ROSE (*De Arist. Libr. Ord.* 125 sq.), BENDIXEN (*Zur Politik d. Arist. Philol.* xiii. 264–301; see HILDENBRAND, p. 496), and others. No modern scholar accepts CONRING'S judgment on the integrity of the work without reservation; several—*e.g.* GÖTTLING (*loc. cit.*), and especially NICKES (p. 90, 92 sq. 109, 123, 130 sq.)—even controvert it. SPENGEL, however (p. 8 sq. 11 sq. 41 sq.), BRANDIS (p. 1669 sq. 1673 sq.) and even NICKES (98 sq.) admit several not inconsiderable *lacunæ* especially at the end of bk. viii., while VAN SCHWINDEREN (*De Arist. Polit. Libr.* p. 12; see HILDENBRAND, p. 449) held that two books, SCHNEIDER (*Arist. Polit.* i. p. viii. ii. p. 232) that the greater part of the discussion on the best state, is lost. Lastly, HILDENBRAND (p. 387 sq. 449 sq.) surmises that at least three books are wanting at the end of bk. viii., and at the end of the whole the last section of bk. vi., besides, perhaps, four books on the philosophy of law.

If, finally, we ask how we are to *explain* the present state of the text, the common opinion is that the work was completed by Aristotle himself, but that it was subsequently mutilated and fell into disorder. BRANDIS, however (p. 1669 sq.), is inclined to consider bk. viii. unfinished rather than mutilated, and this view is more fully developed by HILDENBRAND (p. 355 sq. 379 sq.), who holds that Aristotle intended to insert the essay on the ideal state which is begun in bks. vii. and viii. between iii. and iv., but postponed its completion till he should have written bks. iv. and v. and was overtaken by death before he had finished either it or bk. vi., which was to follow v.

(Some further references to the literature of the subject will be found in BARTHÉLEMY ST-HILAIRE, p. 146 sq.; NICKES, p. 67;

Bendixen, p. 265 sq.; Hildenbrand, p. 345 sq., from whom the above are partly taken.)

Zeller's own view, the grounds of which can here be only shortly given, is as follows:

(1) As regards the order of the text, the majority of recent scholars are undoubtedly right in holding that Aristotle intended bks. vii. and viii. to follow immediately after iii. The contents of bk. ii. as well as its opening words taken with the conclusion of bk. i. are clearly preparatory to a discussion of the best state. This discussion is expressly taken up at the end of bk. iii., and the interrupted sentence with which it closes is resumed at the beginning of vii. in a manner that can hardly be explained except upon the hypothesis that the passage was continuous in the original. Finally, the section upon the best constitution is quite certainly presupposed by such passages as iv. 2, 1289, a, 30, b, 14, c. 3, 1290, a, 1 (cp. vii. 8, 9), c. 7, 1293, b, 1, also c. 4, 1290, b, 38 (cp. iv. 3, vii. 3), and even c. 1 (on which see Spengel, p. 20 sq.). If it be urged that the words *καὶ περὶ τὰς ἄλλας πολιτείας ἡμῖν τεθεώρηται πρότερον* appear to refer to the contents of bks. iv.–vi., it may be replied that these words may just as well be taken to refer to the ideal constitutions criticised in bk. ii. (*τὰς ἄλλας πολιτείας*, ii. 1, 1260, b, 29) as Hildenbrand takes them (p. 363 sq.). The words in question, however, fit so ill the passage in which they occur that it is best to consider them, with Spengel (p. 26) and most other critics, as a later gloss.

(2) On the other hand, there seems no necessity to transpose bks. v. and vi., as has already been shown by Hildenbrand. The only valid ground for this change is the close connection of the contents of iv. and vi. taken together with the preliminary review in iv. 2, 1289, b, 12 sq.—The other arguments, *e.g.* that the words *ἐν τῇ μεθόδῳ τῇ πρὸ ταύτης* in vi. 2, 1317, b, 34, refer to iv. c. 15, as though it immediately preceded, and that v. 9, 1309, b, 16, *τὸ πολλάκις εἰρημένον* refers to vi. 6 as well as to iv. 12, are of little value: the '*μέθοδος πρὸ ταύτης*' may denote not only the immediately preceding *book* (the division into books can hardly be Aristotle's) but the whole preceding section, including bks. iv. and v.; while '*πολλάκις*' is more naturally taken as referring to v. 3, 6 than to vi. 6, if indeed it is necessary to see in it a reference to any other passage besides

iv. 12, where the principle that the supporters of the existing constitution should consider their opponents, although only expressly stated in this general form, is applied with so much detail that it might very well be said to have been here repeatedly (1296, b, 24, 31, 37, as well as 15) emphasised.—The argument, however, above referred to rests upon a gratuitous assumption as to the plan of the work. The contents of iv. and vi. are undoubtedly closely related, but it does not follow that they must have formed a continuous whole. It is possible that Aristotle first completed the general theory of the imperfect forms of constitution (iv. and v.), and afterwards in vi. returned to the first section of the earlier investigation, because he wished to make a more special application of the principles there laid down. So far from contradicting this view the passage iv. 2, 1289, b, 12 sq. is quite satisfactorily explained on the supposition that it is intended merely as a sketch of the plan of bks. iv. and v. Of the five points here mentioned, the first three are discussed in iv. 3–13, the fifth (the *φθοραὶ* and *σωτηρίαι τῶν πολιτειῶν*) in v., while it is all the more likely that the section iv. 14–16 is meant for the discussion of the fourth (*τίνα τρόπον δεῖ καθιστάναι ταύτας τὰς πολιτείας*), as Aristotle expressly says (1289, b, 22) that he intends here to touch only lightly on all these subjects (*πάντων τούτων ὅταν ποιησώμεθα συντόμως τὴν ἐνδεχομένην μνείαν*: hence also the *νῦν* iv. 15, 1300, a, 8), and as the scheme of this discussion which is laid down in iv. 14 *init.* is actually carried out in c. 16. It is quite natural, therefore, that v. 1 should open with the words *περὶ μὲν οὖν τῶν ἄλλων ὧν προειλόμεθα σχεδὸν εἴρηται περὶ πάντων*, nor is there any necessity to take these words as referring to bk. vi. as well. That we should even be wrong in doing so is proved by the passages in vi. which admittedly refer to v., viz. c. 1 *init.* and *fin.* c. 4, 1319, b, 4, c. 5, 1319, b, 37; since in all these passages the rejection of the words in question or the change of a *τεθεώρηται πρότερον* with a *θεωρηθήσεται ὕστερον* could be justified only as a last resource. Finally, the incompleteness of the discussions in vi. is more easily explained if we suppose it to have been composed subsequently to v.

(3) With regard to the integrity of the text, we have to acknowledge, in the first place, that many single sentences are

irremediably corrupt. In the second place, we have several isolated passages which are undoubtedly insertions by a later hand, *e.g.* ii. 12, which was suspected by Göttling (p. 345 sq. on the passage in question) and Brandis (1590, A, 586), though defended by Spengel (p. 11) and Nickes (p. 55 sq.), and rejected from 1274, a, 22 onwards by Susemihl (no impartial critic can accept Krohn's conclusion in the *Brandenburger Programm*, 'Zur Kritik Arist. Schriften,' 1872, p. 29 sq. that scarcely the half of the *Politics* can be attributed to Aristotle). Lastly, we have every ground to believe that important sections of the work were either left unfinished or have been lost. The treatment of the best state is obviously incomplete: Aristotle himself refers us for the further discussion of musical education with which he breaks off to essays on rhythms (viii. 7 *init.*) and on comedy (vii. 13, 1336, b, 20); but besides these we had a right to expect a full discussion of the question of the proper treatment of poetry, and the scientific training of the citizen, which Aristotle's principles could hardly have permitted him to leave untouched (see vii. 14, 1333, b, 16 sq. c, 15, 1334, b, 8, viii. 4, 1339, a, 4, and more fully on this and other points the section on the best state); the life of the family, the education of women, the treatment of children (παιδονομία), property, the treatment of slaves, drinking booths, are merely mentioned to be expressly reserved for later treatment (see i. 13, 1260, b, 8, vii. 16, 1335, b, 2, vii. 6, 1326, b, 32 sq. vii. 10 *fin.* vii. 17, 1336, b, 24); the constitution of the ideal state is only sketched on the most general lines, vii. 15; similarly we look in vain for any account of the laws for the regulation of adult life, indispensable as they are declared (*Ethics*, x. 10, 1180, a, 1) to be for the welfare of the state, and of legislation in general in the narrower sense as distinguished from the constitution, although earlier writers are expressly reproached (*Ethics*, *loc. cit.* 1181, b, 12) with the neglect of this point, while *Pol.* iv. 1, 1289, a, 11 requires that the discussion of the different constitutions shall be followed by that of the laws (on the distinction between them see also ii. 6, 1265, a, 1), not only of the best absolutely but of those which are best adapted for each form of constitution, and express reference is made in other passages to a section upon legislation (see v. 9, 1309, b, 14: ἁπλῶς δὲ, ὅσα ἐν τοῖς νόμοις ὡς συμ-

φέροντα λέγομεν ταῖς πολιτείαις, ἅπαντα ταῦτα σώζει τὰς πολιτείας, and iii. 15, 1286, a, 2: *τὸ μὲν οὖν περὶ τῆς τοιαύτης στρατηγίας ἐπισκοπεῖν νόμων ἔχει μᾶλλον εἶδος ἢ πολιτείας ὥστ' ἀφείσθω τὴν πρώτην*). Cf. Hildenbrand, 351 sq. 449 sq. If we consider how much space all these discussions would have required, we can easily understand how large a part of the essay on the best state which Aristotle had designed is wanting. But the last-quoted passages prove also that the discussion of the imperfect forms was to be supplemented by a section on legislation to which bk. vi. appears to have been designed as an introduction. As moreover the discussion of the *ἀρχαὶ* in iv. 15 is resumed in vi. 8, we should have expected similar discussions of the legislative assemblies and the law courts (iv. 14, 16). Finally, seeing that vi. 1, 1316, b, 39 sq. expressly notes the absence in the foregoing discussions of all reference to the forms of constitution which result from the union of heterogeneous elements (*e.g.* an oligarchical senate with aristocratic courts of law), and proposes to remedy this omission, we must reckon this section also among those which either have been lost or were never completed.

(4) Which of these alternatives we ought to accept, and how accordingly we ought to explain the form in which the work has come down to us, we have not sufficient data to decide. But the circumstance that the chief *lacunæ* are at the end of the second and third of the main divisions of the work lends countenance, as Hildenbrand rightly remarks (p. 356), to the view that neither was completed by Aristotle himself. We must suppose, moreover, that he developed coincidently the doctrine of the best state and of the imperfect forms, although he intended on completion of the whole to combine them in strict order of succession. This view gains some support from the fact that there is no evidence that the work ever existed in a more complete form, and that even Diog. v. 24 (*Hermippus*) gives only eight books, while the extract from Arius Didymus given by Stobæus, *Ecl.* ii. 326 sq. (cf. vol. iii. a, 546 sq.) at no point goes beyond what is contained in the *Politics* as we have it. The view here taken is accepted by Schintzer (*Zu Arist. Politik Eos*, i. 499 sq.), and with more hesitation by Ueberweg (*Grundr.* i. 178, 5th ed.). Susemihl, on the other hand

(*Jahrbb. f. Philol.* xcix. 593 sq. ci. 343 sq 349 sq. *Arist. Polit.* li. sq.), and ONCKEN (*Staatsl. d. Ar.* i. 95 sq.) follow Barthélemy St-Hilaire even in the transposition of bks. v. and vi. Upon Oncken's hypothesis that the *Politics* and other works of Aristotle have come down to us only in the form given to them by students, Zeller has already expressed his opinion (*supra*, vol. i. p. 133), which coincides with what Susemihl had previously held upon the same point (see *Jahrbb. f. Philol.* vol. cxiv. 1876, p. 122 sq.). The passage from *Politics*, vii. 1, discussed in vol. i. p. 115, n. 4, itself contradicts this hypothesis. On similar grounds we must reject the view (BERNAYS, *Arist. Politik*, 212) that the work we have consists of a collection of notes which were designed for the philosopher's own use in his oral instructions. In this case his style would have been much terser and more condensed, nor should we have had those forms of transition to which attention has been called by ZELLER (*supra*, vol i. p. 135, n. 2) and by ONCKEN, i. 58 (for further examples see i. 3, 1253, b, 14, i. 8 *init.* i. 9, 1257, b, 14, vii. 1, 1323, b, 36, vii. 2, 1325, a, 15), or of reference, as in iii. 12, 1282, b, 20 (*οἱ κατὰ φιλοσοφίαν λόγοι, ἐν οἷς διώρισται περὶ τῶν ἠθικῶν*), viii. 7, 1341, b, 40 (*πάλιν ἐν τοῖς περὶ ποιητικῆς ἐροῦμεν σαφέστερον*), vii. 1, 1323, a, 21, iii. 6, 1278, b, 30 (see *supra*, vol. i. p. 115, n. 4). The *Politics*, in fact, together with the *Ethics* and the *Rhetoric*, belong to that class of Aristotle's works in which the reader is most plainly before his eyes, the style being much too full for notes designed for the author's exclusive use. Let the reader take the passages i. 2, 1252, a, 34–b, 27, c. 4, 1253, b, 33–39, c. 9, 1257, b, 14–17, i. 11, 1258, b, 39–1259, a, 36, vii. 1, 1323, a, 2–1324, a, 4, vii. 2, 1324, a, 25–1325, a, 15, iv. 1 *init.* and then ask himself whether anyone would write in such a way for his own private use.

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